2020 GM STC Course Catalog



Foreword



The GM Center of Learning Mission

Our mission is to improve the performance of GM dealerships through the professional development of dealership personnel. We provide a comprehensive curriculum of job-relevant courses, effective instruction, learning measurement, and feedback systems.

The goals of GM training are to:

- Provide smart, concise tools and resources to help improve employee performance
- Offer all training under one Learning Management System (LMS): www.centerlearning.com
- Eliminate redundant training between divisions
- Improve the quality and scope of training
- Increase the amount of training available in the dealership
- Provide Sales and Service tools that positively impact the customer's experience

Commonality, Productivity, and Efficiency

The GM training program continues to evolve by ensuring the *right content* reaches the *right people* at the *right time*. The program offers every dealership a consistent source for most training needs; it's designed to improve performance by focusing on quality – not quantity – and by offering knowledge that is smart, convenient, and easy to access. All dealers are encouraged to participate in training.

The GM training program offers:

- Significantly more training delivered directly to the dealers
- Just-In-Time (JIT) training for critical sales, service, and parts issues
- Blended delivery methods such as web-based Virtual Classroom Training (VCT), Hands-On Training, GM TechTubes, Video On Demand (VOD), Performance Support Objects (PSO), Diagnostic Exercises (DE), and interactive Video (iVideo).
- One monthly charge for virtually all GM training
- Access to the Center of Learning website, which offers the following features:
 - Path to 100% STS link for service managers and service technicians
 - Course enrollment functions
 - Detailed course information
 - Training plan management
 - Online (real-time) training reports of dealership personnel training status
 - Learning paths to manage training needs and progress for nearly all dealer employees

For information regarding enrollment, specific charges and/or program information, please contact the Center of Learning Help Desk using the Live Chat feature on the Help page on www.centerlearning.com.

GM Service Technical College (GM STC)

The GM STC works in conjunction with GM's Center of Learning to eliminate redundant courses and unify service technical training curriculum. Through its blended media approaches and high quality instructional design, GM STC helps to develop the service technician's knowledge and skills while reducing time away from dealerships. GM's customers benefit by knowing that the service technician has the background and experience to repair the vehicle correctly the first time.

Caution

This catalog from GM STC is intended for use by professional, qualified service technicians. Attempting repairs or service without the appropriate training, tools, and equipment could cause injury to you or others and potentially damage the vehicle or cause the vehicle to operate improperly. Proper vehicle service and repair are important to the safety of the service technician and to the safe, reliable operation of all motor vehicles.

Please be advised that all information in this catalog is the latest data available at the time of publication. GM STC reserves the right to make product or publication changes, at any time, without notice. New product information will be introduced as it becomes available in the media mix best suited to present the product. Be sure to check www.centerlearning.com for the latest information. This catalog, or any portion thereof, may not be reproduced without written consent of General Motors Service Operations, General Motors Company.



The GM Center of Learning Mission	i
Commonality, Productivity, and Efficiency	i
GM Service Technical College (GM STC)	ii
Caution	ii
GM STC Service Technician Training	1
Training Goals	1
Performance-Based Curriculum	2
Blended Learning Media Mix Overview and Course Components	4
Understanding Course Component Flow & Function	8
Web-Based Placement Assessment	10
The Performance Checklist	11
GM Master Technician Certification (MTC) Assessment	12
GM Master Technician Certification Preparation Guide	14
GM Master Technician Certification Performance Checklist	14
GM World Class Technician (WCT)	14
Performance Assurance	15
ASE Accreditation	17
Dual Nature of the Curriculum	19
Dealer Divisional Service Training Standards (STS)	21
The Recommended Course Sequence	
Course Numbering System	23
Path to 100% STS	24
Reserve a Seat	24
Service Training Planner	
ASE Certification Information	25
View Available Dealer Reports	
2020 Dealer Divisional STS and MTC Requirements	
1. Emerging Issues	
2. Fundamentals	
3. Engine Repair	
4. Automatic Transmission/Transaxle	
5. Steering and Suspension	
6. Electrical/Electronics Systems	
7. Heating, Ventilation and Air Conditioning (HVAC)	42

8. Brakes	44
9. Engine Performance	46
10. Diesel Engine Performance	48
11. Manual Drivetrain and Axle	50
12. Mechanical/Electrical Body Repair	52
13. Advanced Technology Vehicles	54
14. Body Structural Repair	58
15. Paint and Refinish	60
Medium Duty (Low Cab Forward)	62
Non-STS Curriculum	64
Maintenance Inspection Technician (MIT)	64
Boot Camps	
Training Provided by GM Approved Suppliers	
Body Structural Repair	
Paint and Refinish	
GM Paint Manufacturer Course and Contact Information	
Frequently Asked Questions	
GM STC Portal Site (www.gmstc.com)	
First Responder Guides, Rescue Sheets, and Quick Reference Sheets	
Center of Learning Website (www.centerlearning.com)	
Center of Learning Functionality and Features	
The Importance of E-mail	
Blended Learning	
Reports	
GM Training Tips	
GM Center of Learning Resources	
Help/Support	
GM STC Training Locations	
GM Regional Map North Central Region	
Northeast Region	

1



South Central Region	
Southeast Region	94
Western Region	96
Computer Systems	
Computer System Standards/Specifications	
Online Instructor-Led Training User Requirements for Participants	100
GM Training Materials	101
Fleet	103
ACDelco	104
GM Automotive Service Educational Program	
(GM ASEP)	105
ASE Education Foundation	106
Military Support	106
Shifting Gears	108
GM Technician Career Training Program	109



GM STC Service Technician Training

Training Goals

GM STC helps service technicians achieve the highest level of customer satisfaction in dealer service by structuring their training around a standard performance-based curriculum. The curriculum provides a blended approach to training, dividing training between indealership and off-site locations. With the right mix of training methods, a growing number of technicians are able to demonstrate they are ready to "Fix it Right the First Time!"

Improved service quality leads to improved customer satisfaction and loyalty to the dealership and the product; improved customer satisfaction also helps the dealer achieve long-term profitability.

Dealer Benefits

By actively participating in the GM STC training program, dealers experience the following benefits:

- More in-dealership training that requires service technicians to spend less time away from the dealership
- A training website (www.centerlearning.com) that allows versatile, on-demand training management with a convenient "Path to 100% STS" link, training histories, ASE certification status integration, and training reports, among other features
- Improved customer satisfaction and loyalty, based on more effective technician performance
- Access to skilled entry-level automotive service technicians who graduate with GM STC course credits from the GM Automotive Service Educational Program (GM ASEP), the Shifting Gears Automotive Technician Training program, and the GM Technician Career Training program
- Access to the GM Service Technical Automotive Readiness Training (GM START) program, which helps GM dealers recruit and retain service technicians by offering fundamental training in automotive technology

Service Technician Benefits

By participating in the GM STC training program, service technicians experience the following benefits:

- Knowledge and skills to "Fix it Right the First Time!"
- Faster professional development through the elimination of training redundancy
- Focused training and career development provided by the "Path to 100% STS" link for required courses
- Access to a performance-based curriculum that requires sufficient competency
- Modular training to accommodate the technicians' schedules

Performance-Based Curriculum

The GM STC performance-based curriculum offers training courses across Chevrolet, Buick, GMC, and Cadillac brands. To receive credit for a course, service technicians must demonstrate competency in all applicable course components, which may include web-based; VOD; VCT; and GM Service Know-How Emerging Issues seminars.

If a service technician does not demonstrate sufficient competency, he will be required to review or retake the course component until competency is obtained.



- For web-based components, content-specific review is built into the training, with service technicians required to review until they obtain a score of 100% on test items
- For Virtual Classroom Training (VCT) components and GM Service Know-How Emerging Issues seminars, service technicians are required to retake the entire component until they obtain a score of 80% or better
- For Hands-On, service technicians are required to retake the entire component until they demonstrate sufficient competency
- For GM Service Know-How Video On Demand and videos, service technicians are required to view the video and take the test via www.centerlearning.com until they obtain a score of 80% or better

The goal of the performance-based curriculum is to provide a path for service technicians to meet the requirements for GM's Dealer Divisional Service Training Standards (STS) (for example, become Division Certified) and GM Master Technician Certification (MTC). The curriculum is divided into 16 certification areas covering cars and light-duty trucks.

The 15 curriculum areas are:

- 1. Emerging Issues
- 2. Fundamentals
- 3. Engine Repair
- 4. Automatic Transmission/Transaxle
- 5. Steering and Suspension
- 6. Electrical/Electronics Systems
- 7. Heating, Ventilation and Air Conditioning Medium Duty: this category does not have a (HVAC)
- 8. Brakes
- 9. Engine Performance

- 10. Diesel Engine Performance
- 11. Manual Drivetrain and Axle
- 12. Mechanical/Electrical Body Repair
- 13. Advanced Technology Vehicles
- 14. Body Structural Repair (I-CAR)*
- 15. Paint and Refinish*
- training path in the CoL

* Training and certification is offered through GM-approved suppliers and not through GM STC.

The certification areas are made up of three types of courses:

- 1. Those required for the dealership to meet Dealer Divisional STS and for the service technician to become GM STC Division Certified.
- 2. Those required for the service technician to achieve GM Master Technician Certification (MTC).
- 3. Those that provide supplemental content to enhance the service technician's knowledge and skills but are not part of GM MTC or the Dealer Divisional STS.

Dealer Divisional STS Courses

Service technicians need STS courses to service the models that their dealerships sell. These courses are listed on each STS/MTC table with a solid diamond (\blacklozenge).

GM Master Technician Certification Courses

GM MTC courses are represented in each STS/MTC table with a solid dot (●). Service technicians are encouraged to take certification courses in order, from the top of the STS/ MTC table to the bottom. This order best prepares the service technician for each successive course. The final activity for completing GM MTC is taking a Certification Event.

Supplemental Courses

Supplemental courses provide additional content to enhance the service technician's knowledge and skills but are not part of the MTC or Dealer Divisional STS requirements. Some of these courses may become an STS requirement in the future. Note that not all certification areas have supplemental courses. These courses are listed on each STS/MTC table with four small diamonds (\clubsuit) where applicable.















Blended Learning Media Mix Overview and Course Components

Center of Learning training is available at the dealership through a variety of media. GM STC courses have evolved from traditional instructor-led to blended learning with more flexible delivery methods while emphasizing performance-based outcomes. This approach better supports service technician training by offering the appropriate media mix for the needed training in the 21st century.

The media mix includes, but is not exclusive to, web-based, Virtual Classroom Training (VCT), VOD, Performance Support Objects (PSO), Diagnostic Exercises (DE), GM TechTubes, and Boot Camps. This media mix allows service technicians to improve their product knowledge and advance their repair and diagnostic skills while spending less time away from the dealership.

Courses can also be accessed via a tablet; just look for this symbol.

GM STC offers two modes of training:



- Asynchronous training, also known as self-paced training, doesn't require learners and instructor/s to be online or in person at the same time for instruction.
- Synchronous training requires both learners and instructor/s to be present at the same time for instruction.

	LOC	ATION				OBJECTIVES	3				
DELIVERY MEDIA	In-Dealer	Training Center	Raise Awareness	Teach Function and Theory	Teach Processes & Procedures		Test Knowledge and Skills	Reinforce Learning	Update Emerging Issues	TIMING	MODE
Video/VOD	•		•					•	•	Asynchronous	Individual
Web-Based Training (WBT)	•			•						Asynchronous	Individual
Virtual Classroom Training (VCT)	•			•	•			•	•	Synchronous	Group
Diagnostic Exercises	•				•	•	•			Asynchronous	Individual
GM TechTube	•		•							Asynchronous	Individual
Boot Camp		•		•	•	•	•	•		Synchronous	Group
Hands-On Instructor Led Training		•				•	٠	•		Synchronous	Group



Web Based Web-Based Training



Web-based course components are self-paced training. Instruction is delivered over the Internet and is just-in-time, specific, job-focused, and practical. Webbased appeals to a broad range of learning styles and is multi-sensory, meaning that

instruction is presented through voice-over narration, text, graphics, and animation. Service technicians have the option to turn off the voice-over narration and display the narration script instead. Web-based training allows service technicians to review sections of the course as many times as needed to get comfortable with the content. Although an estimated training time is indicated for each web-based course component, service technicians learn at a pace best suited to their individual needs. Course progress is automatically bookmarked, allowing service technicians to log in and resume a course on any Internet-ready computer at their convenience.

Each course is divided into a number of modules which are then sub-divided into lessons. When a service technician completes a lesson or a module, he may continue on through the course or exit then return to the point at which he stopped at a later time. Enhancements have been made to the testing methodology for web-based modules. Upon starting a modularized course, the technician will not see any difference until he completes the first module. Upon completion of the module, the technician will be presented with a module test to complete. This is done to ensure that all learning objectives are tested immediately after the content is presented to the technician. Technicians no longer have to take and pass a course test at the end of the training, thus saving additional time. The module test must be passed at 100 percent in order to receive credit.



Interactive Video

Interactive Video is a media solution that leverages the engaging production qualities of traditional video and adds in the user-involvement technology of HTML5 and web-based training. This maximizes interactivity and enables the

technician to absorb the learning content at his own pace.

Interactive video courses end with a W (for web-based) in the course number; for example, *Battery Electric Vehicle Introduction (18430.05W2)*.



Virtual Classroom Training (VCT)

This live, Internet-based training requires no special software although a headset equipped with a microphone is required to participate in the training. Virtual

Classroom Training (VCT) provides live access for "on the spot" question-and-answer opportunities. Participants must complete the prerequisite course(s) prior to enrolling in any of these courses. After completing the prerequisite course, participants may enroll in any VCT course up to thirty minutes prior to the course start time.

Courses are delivered in a modular format with a duration of approximately two hours for each session. Post-test questions



2

post-test, after which it will be closed.

Once the course component is completed, testing is accomplished via the post-test administered over the system. Service technicians' answers are then tabulated, and their training records and Learning Paths are updated accordingly within 48 hours.

VCT courses end with a D in the course number; for example, *Engines: New and Updates for RPOs LT4 and L0A (16440.19D)*.

Performance Support Object

Performance Support Object (PSO)

PSOs contain key points derived from selected web-based, online instructor-led, and Instructor-Led courses that reinforce training content and focus on how to perform certain job-related tasks.

Notification of a PSO will be emailed directly to the participant approximately two weeks after a course completion directing them to their My Resources tab in the CoL.



Video On Demand (VOD)

Video On Demand course components offer service technicians the ability to view previously recorded content at any time. All Service Know-How Seminars are available for viewing on www.centerlearning.com.

With this VOD capability, service technicians can review video course material as needed. VOD content may be viewed in several ways:

1. from the Catalog page, type the course number or name in the search box

iiii iii iii iii iii iii iii iii iii i	Catalog > Catalog Sea	rch		
22048.55V	Х	SORT BY TITLE (A-Z)	ACTIVE V	

2. from the home page, select a Learning Path, find it, and then select Launch.

22048.55V Preventing Unintended Airbag Deployment	Launch Test VOD Out	
--	---------------------------	--

All testing for GM Service Know-How videos is accomplished through www.centerlearning.com. Service technicians receive credit for the video components by successful completing appropriate post-tests available.

VOD courses end with a V in the course number; for example, 8L90 Automatic Transmission Unit Repair (17041.70V).



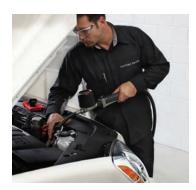


Diagnostic Exercises (DE)

DEs replace Simulations and are tablet-, PC-, and laptop-ready. They offer a more intuitive interface and functionality, and help coach you through the training. Diagnostic Exercises enable you to safely practice multiple procedures in a virtual

environment and act as a knowledge bridge between traditional web-based and hands-on exercises.

Each DE is divided into a number of modules. When service technicians complete a module, they may continue to the next module immediately or stop and return to the start of the next module at a later time. Once service technicians complete all modules within a simulation, they receive credit for the simulation component in their training records.



DE courses are in web-based format and end with a W in the course number and Diagnostic Exercise in the course title; for example, *GM Chassis Control Systems Diagnostic Exercise* (13044.20W3).

Hands-On Hands-On Instructor-Led Training



Service technicians attending training participate in an instructor-facilitated performance-based class. The tasks in each course component are designed to simulate real situations encountered in a dealership environment.

A course component is dedicated to performance-based instruction. The service technician must successfully demonstrate the ability to solve pre-planned problems. Once the facilitator completes the assessment, the service technician's training record and Learning Path are updated.

The course component process:

- 1. Service technicians work in teams to perform pre-planned performance-based tasks with assistance and guidance from the facilitator, when needed.
- 2. The facilitator conducts a review at the end of each round of exercises before proceeding.

Note: If a service technician does not demonstrate competency, a recommended remediation training plan is provided.

The instructor does not lecture but serves as another valuable resource available to the service technician. This format allows service technicians time to practice and refine diagnostic and repair skills. Prior to attending any course component, a service technician is required to complete all prerequisite courses and components listed in their Learning Path.

Hands-On training courses end with an H in the course number; for example, *Noise, Vibration and Harshness (13042.14H).*

2

Training Overview



GM TechTube

GM TechTubes are a whole new library of short, informative videos to supplement technicians' technical and non-technical knowledge.

Simply click on the GM Media Tube box located on the www.centerlearning.com home page for access to over 100 branded videos in categories ranging from Auto Body and Paint to Brakes, from Electrical/Electronics to Tools and Equipment.



These brief instructional videos, each from one to nine minutes long, are quick and convenient to view and drive you deeper into topics of instructional interest and value. A representative list of videos include:

- Manually Accessing Center Console
- Understanding and Measuring Amperage
- Driver's Side Airbag Removal
- Electronic Child Safety Locks Operation

GM TechTube videos are not part of any job role Learning Path, there are no tests to take, and no transcripts. They can also be accessed via mobile devices using the Android and iPhone platforms.

Understanding Course Component Flow & Function

GM STC blended training delivers courses in multiple components; these different components provide the service technician with the skills necessary to "Fix it Right the First Time!"

Multiple component courses may use combinations of the following media:

Web-based training addresses the knowledge portion of the class. The material is designed to teach the service technician theory of operation and function of the systems and components and introduce diagnostic procedures.

VCT reinforces the knowledge provided in the WBT and introduces the service technician to diagnostic skills necessary to repair the vehicle.

Hands-On allows the service technician to practice diagnostic skills in a setting similar to the work environment.

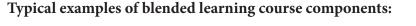
Diagnostic Exercises facilitate the practice of skills, educate, and update knowledge.

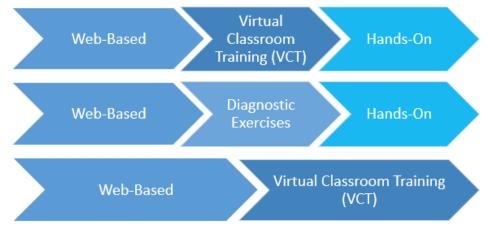
Video On Demand has an easy-to-use "Search Videos" function which allows users to review



specific content. This search capability allows technicians to locate a specific topic at any time.

In each component of the blended training, successful completion of a final test is required for course component credit.





Videos augment the basic course components and should be taken at the appropriate time in the Learning Path based on prerequisites.

Credit for Course Components (known as Cross Credits)

The LMS enables technicians who have successfully completed a previous version of a course to conveniently get credit for a new version of the same course in their training history without having to repeat the entire course again.

Here is how it works: Technicians who have completed a current version of a course can access the new version and take just the module(s) with new content. Once complete, the technician will get credit for the new course and will then be able to review all of the modules as a refresher, if needed.

Note: This applies to select courses on an as-needed basis.

Testing

Most courses allow for two test attempts. Technicians should review the materials carefully before taking the test; if the test attempts are exceeded, technicians will be locked out indefinitely until GM STC resets the tests on a periodic basis. Unless otherwise noted under respective course components, testing for the listed course components is as follows:

Video On Demand: Testing for content on VOD is available by going to the Course Details page in www.centerlearning.com When the course is live and ready for viewing, service technicians should click "Launch". When they are done viewing the course, they must click on the "Take Test" link that appears in the Video On Demand player at the completion of the video.

22048.55V Preventing Unintended Airbag Deployment	Launch Test VOD <u>Out</u>	
--	----------------------------------	--

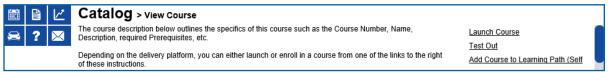
Web-Based Placement Assessment

Placement Assessments measure knowledge and/or skills in a given certification area and are designed to allow experienced service technicians the opportunity to test out of course components. They will not be reset if test attempts are exceeded; technicians will need to take the course to receive credit.

Successful completion of a Placement Assessment gives service technicians credit for the webbased and VCT course components and also allows them an opportunity to place out of the component (where applicable). Tests are aligned to a single component.

To take a Web-Based Placement Assessment:

- 1. Log onto www.centerlearning.com.
- 2. Select the Learning Path, and find the course you wish to take the Placement Assessment for and select its name to get to the "View Course" page.
- 3. On this page select the "Test Out" link.



Important Notes:

- Placement Assessments are timed. The allotted time is shown at the beginning
 of each assessment. If a service technician exits a test, the timer will stop and the
 current question will be closed and will not be repeated, so it's important to finish a
 question before exiting. When the service technician is ready, he/she can continue the
 assessment with the next question.
- Service technicians have up to two weeks to complete a given Placement Assessment; however, it is recommended that the assessments be completed in one session. Generally, assessments take less than one hour to complete.
- Placement Assessments and the Paint Placement Assessments can be taken twice.



- If the service technician fails (e.g., receives a score less than 80%) the technician will
 not receive credit for the Placement Assessment. However, if the technician receives a
 score of 80% or above, the technician will receive Placement Assessment credit along
 with credit for the component associated with the Placement Assessment passed. If the
 technician does not pass the Placement Assessment, the technician is responsible for
 completing the associated component to receive credit.
- Upon successful completion of a Placement Assessment, the service technician's learning path, training record, and the dealership's STS report are updated to reflect credit for the corresponding course components.

The Performance Checklist

When a service technician successfully completes a Placement Assessment, he/she can take the course (if applicable). If the service technician has experience and is knowledgeable in the subject area, credit may be obtained for the course component by completing the Performance Checklist with his/her manager.

Note: Checklists are not available for all courses.

If the service technician successfully completes **all** Placement Assessments that have a hands-on component, a link to the Hands-On Performance Checklist appears at the end of the Assessment. The checklist can then be downloaded simply by clicking the link. (Adobe Acrobat Reader 5.0 or higher is required to download the checklist.)

Each Hands-On Performance Checklist contains various tasks related to the hands-on component. The service technician must be able to correctly perform at least 80% of the tasks listed on the checklist to receive Hands-On component credit.

If the service technician can perform at least 80% of the tasks on the Performance Checklist, they should notify their service manager. The service manager can then assign hands-on credit in www.centerlearning.com.

Performance Checklist for Noise, Vibration and Harshness Course Component # 13042.12H					
This Performance Checklist is to be completed by both the technician and the Service Manager. The purpose of the checklist is to enable both the Service Manager and the technician to accurately assess the technician's knowledge, skills and performance ability to determine if the technician possesses the necessary skills to bypass the Hands-on component of this course. Accurate assessment of the technician is vital to their ability to successfully complete the Certification Assessment for the area. Attending the Hands-on component of this course may increase the technician's ability to pass the Certification Assessment.					
Please circle the appropriate response that corresponds to the technician's ability to perform the listed task. Yes = Technician has performed this task successfully. No = Technician cannot successfully perform this task.					
	Rating System				
Perform a system diagnostic check related to a vibration fault					
Verify a customer concern	Yes No				
Make quick checks	Yes No				
Use an electronic vibration analyzer (EVA) diagnostic tool to isolate the source of vehicle vibration	Yes No				
Perform a system diagnostic check	Yes No				
Perform a road test to diagnose concerns related to a vibration fault					
Perform a slow acceleration test	Yes No				
Perform a neutral coast-down test	Yes No				
Perform a downshift test	Yes No				
Perform a neutral run-up test	Yes No				
Perform a brake torque test	Yes No				
Perform a steering input test	Yes No				
Perform a standing start acceleration test	Yes No				
Identify causes of driveline component vibrations					
Measure rear axle pinion flange runout	Yes No				
Measure propeller shaft balance	Yes No				
Measure propeller shaft runout	Yes No				
Measure propeller shaft joint working angles	Yes No				
Calculate propeller shaft rotation	Yes No				

The service manager must ensure the service technician can perform at least 80% of the tasks contained within the Checklist. Failure to assess the service technician's skills accurately may result in his/her not qualifying for GM Master Technician Certification.

Note: If the service technician cannot perform at least 80% of the tasks contained within the Checklist, they should enroll in the Hands-On course component.

• To assign Hands-On credit for the course, click the checkbox next to the course in the "Approve" column and click "Submit".

Note: The service technician's training record will be updated to reflect the Hands-On credit.

 Only service technicians who take and pass all Placement Assessments with Hands-On components can use Hands-On Performance Checklists to obtain Hands-On course credit.

GM Master Technician Certification (MTC) Assessment

To attain MTC, the technician must be 100% STS in both Silver and Gold and complete all MTC components. GM MTC Assessment is a performance-based event in which each service technician must demonstrate knowledge and diagnostic skills. During the GM MTC event, each service technician is required to solve real vehicle faults by applying the accumulated learning from **all** courses in the Certification Area. The GM MTC Assessment Program covers 13 of the 15 service categories (it excludes Fundamentals and Emerging Issues. MTC assessments are administered at training locations across the country.

The GM MTC Assessment contains a comprehension component and a practical evaluation to assess the service technician's knowledge and diagnostic skills. Each Assessment consists of timed exercises that have been developed based upon the critical elements of the courses across the Certification Area and real life concerns.

To achieve GM Master Technician Certification, a service technician must successfully pass the GM STC Certification Event and be ASE certified in that area.

GM STC recognizes a one-year certification with an annual renewal on Master Technician Certifications. The MTC program allows service technicians to retain their certification if they are at 100% on their STS training requirements.

Once a service technician successfully completes a MTC assessment, that service technician will remain Master Technician Certified as long as they continue to meet their STS requirements for the area(s) in which they are certified. The service technician must maintain their ASE Certification for that category as well.



The Service Technician Assessment Process is as follows:

Each exercise is designed to assess each service technician's ability to diagnose and apply skills with a simulated real-life customer concern using cross-divisional vehicles.

To successfully complete a Certification Event, the service technician must obtain a total score of 80% or better across the performance-based exercises. During the assessment, a certifier who has received extensive training in conducting performance-based assessments evaluates the service technician's skills. A service technician who receives GM MTC status receives the following items:

- Letter
- Certificate of Achievement*
- Patch**

*Only the first certificate will be mailed. Additional Certificates are available for download online. **Additional GM patches are available for purchase through the Center of Learning Help Desk at (888) 748-2687.

If a service technician does not satisfy all of the assessment requirements, a letter indicating the areas for improvement is provided to the service technician.

The service technician's Learning Path and the STS/MTC tables define the courses in an area that must be completed before the service technician may enroll for the Certification Event. Service technicians can enroll for a Certification Event in the same manner they would for a course component. During the enrollment process, the service technician is given the option to download both a GM MTC Preparation Guide, which provides additional information about the assessments, and a Certification Event Performance Checklist.

GM Master Technician Certification Preparation Guide

The GM MTC Preparation Guide is a reference tool for service technicians preparing to take a Master Technician Certification Event. It helps service technicians by explaining how to prepare for the assessment, what happens on the assessment day, and what happens following the assessment.

GM Master Technician Certification Performance Checklist

The Certification Performance Checklist lists the knowledge, skills, and performance criteria in which the service technician should be proficient prior to a Certification Event. The service technician and the service manager may utilize the Certification Event Performance Checklist to evaluate the service technician's performance. This checklist determines if the service technician is ready to participate in the Certification Event or should attend the instructor-led course component prior to the assessment. The service technician can also use the checklist to prepare for the assessment.

GM World Class Technician (WCT)

A technician can achieve GM World Class Technician status in the Mechanical area. It's achieved when a technician successfully completes all related training and the appropriate Master Technician Certifications.

Service technicians can achieve WCT status in the Mechanical area when they successfully achieve eight of nine MTCs with their accompanying ASE Certifications. They have a choice of completing either Engine Performance or Diesel Engine Performance along with seven mechanical-related certifications. These areas are as follows in the chart below:

MECHANICAL				
Course	ASE Requirement			
Electrical/Electronics	A6			
Engine Repair	A1			
Heating, Ventilation, and Air Conditioning	A7			
Brakes	A5			
Steering and Suspension	A4			
Manual Drivetrain and Axle	A3			
Automatic Transmission/Transaxle	A2			
Engine Performance	A8 and L1			
or	or			
Diesel Engine Performance	A9			

2



Technicians who receive World Class Technician status receive a gift package that includes the following:

- Letter of Recognition signed by the Director, Dealer Service and Warranty Operations
- WCT statue
- WCT patch
- WCT toolbox medallion (introduced in 2017)
- Downloadable certificate from the Center of Learning



Performance Assurance

The GM STC program has an evaluation system in place to measure the effectiveness of the performance-based curriculum and the delivery media.

GM STC evaluates the performance of the training program at four levels:

1. Participant Satisfaction

As service technicians complete a course component, they may also complete an evaluation form. GM STC uses this feedback to measure the service technicians' attitude or feelings toward the following:

- Relevance and value of the component
- Course design
- Effectiveness of the delivery method
- Overall instructor skills, where applicable

The Performance Assurance group compiles and reviews this information. It is then provided on a monthly basis to the Curriculum team, GM STC instructors, and internal Subject Matter Experts (SME) to continuously update and improve the courseware.

2. Participant Learning

When service technicians complete a course component, a post test is provided to measure their knowledge and skills. This type of evaluation tracks the service technician's progress through the training program.

Post tests vary based on the delivery method. The WBT, Virtual Classroom Training (VCT), and VOD post tests consist of various types of questions. The Hands-On course component and diagnostic exercise requires service technicians to demonstrate both skills and knowledge.

3. Participant Transfer of Skills to the Job

The best measurement of the overall training program's effectiveness is an evaluation of whether the service technician has transferred what was learned and demonstrated in class to the dealership. A select number of technicians are contacted approximately two months after completing the training. This allows the Performance Assurance team to validate that the course skills transfer to the job and add value.

Performance data is investigated to review relationships between training and skills transfer. These investigations examine warranty data and first-time repair information; they involve ongoing and recurring data acquisition and analysis and are integrated into the overall program evaluation process.

4. Business Impact Due to Skills Transfer

The impact of training on business is under active investigation. Critical areas, such as customer satisfaction and call center activity, are analyzed to determine how training is contributing to performance improvement in these areas.

Other Feedback Mechanisms

GM's Customer Care and Aftersales division provides Dealer Satisfaction Survey results to GM STC to gauge service managers' opinions of GM STC training products. The survey results provide valuable input for short-term and long-term improvement initiatives, ensuring continuous improvement to the GM STC program.



ASE Accreditation

Becoming an ASE Accredited Training Provider is a highly regarded accomplishment in the service technical training area, as it recognizes those organizations who provide outstanding technical training to service technicians. GM STC initially achieved this status in the automotive training industry by being awarded accreditation for its Service Technical Training curriculum in 2001.

Becoming accredited is a voluntary ASE certification program for training entities that provide continuing education to working automotive service technicians. The ASE Education Foundation administers the program and the National Institute for Automotive Service Excellence (ASE) grants the certification.

The accreditation program certifies training providers for working service technicians. ASE Education Foundation evaluates the training providers' process of developing and delivering training and then recommends accreditation, when appropriate, as an ASE Certified Training Provider.

There are many benefits to receiving training from a ASE Certified Training Provider including:

- The recognition that the training provider and its processes have been reviewed against industry established and endorsed standards.
- The accreditation process serves as a tool for program improvement.



Dual Nature of the Curriculum

GM STC curriculum is designed to meet two requirements:

- 1. Train service technicians to service dealer-specific products
- 2. Certify GM service technicians to a common standard

This dual nature of the GM STC curriculum is represented on the Dealer Divisional Service Training Standards (STS) and GM Master Technician Certification (MTC) requirement tables: solid diamonds (♦) indicate the courses that apply by Division to the dealer requirements and solid dots (●) show the courses that apply to the GM MTC program.

Any course in the GM STC program is available to an active GM service technician provided prerequisites have been met. Two learning paths are displayed for each Certification Area. The first path lists the course components needed to fulfill the STS requirements in that area. The second path lists the course components needed to fulfill the MTC requirements in that area. Those course components that have Enroll listed in the 3rd "Action" column are the courses that need to be completed.

On the STS Report (available to dealer service managers), empty cells to the right of the service technician's name in a Certification Area indicate that the course is required for the dealership. In many cases, the STS and MTC requirements are the same. Please refer to the STS Report, Learning Path, and the Technician Training Gap Report for a complete list of training needs. When a service technician successfully completes a course that is listed on both the Learning Path and the STS Report, credit is given for both.



Learning Paths for GM Master Technician Certification

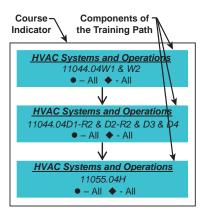
Every GM service technician can choose a Learning Path that includes the requirements for the GM MTC. This Learning Path assists the service technician in identifying the courses to take for a specific Certification Area. A service technician's Learning Path will carry over from year to year; however, it should be checked at the beginning of each year for changed requirements.

Course credit is awarded to the service technician's Learning Path through several mechanisms:

- In 2000, the GM STC curriculum recognized and credited the knowledge and skills that service technicians had acquired in previous GM Service Technology Group/Service Operations courses. Past training records were used to credit service technicians with GM STC courses.
- In 2001, the web-based Placement Assessment and Hands-On Performance Checklist became available for service technicians to test out of course components and receive credit on their Learning Path.
- Successful completion of a course component is also credited to the service technician's Learning Path.

Identifying Courses and Components on the Learning Path

It is important to note on the Learning Path that a course may consist of two, three, or four component delivery media. For example, the HVAC Systems and Operations course (11044.04) is actually delivered as three different components, each using a different medium: Web-Based Training (W), Virtual Classroom Training (D1 and D2 for parts 1 and 2), and Hands-On training (H). This is shown on the Learning Path as three separate numbers, each with the same 7-digit core course number and a suffix letter/number to denote the delivery medium and, if appropriate, the release number.





Dealer Divisional Service Training Standards (STS)

In response to dealer feedback, we changed how the dealer size is calculated and the impact on Service Training Standards (STS) for all dealers. GM STC worked with the Dealer Fixed Operations Advisory Board (DFOAB) to develop a methodology that aligns service training with overall technical training goals to deliver a truly exceptional service experience for our customers.

Individual dealer STS requirements are determined by a dealer's Repair Order (RO) count rather than VINs Sold. The RO data includes both warranty and customer pay. This data excludes claims that would normally happen before the sale (for example, Pre Delivery Inspection and transportation claims) and stand-alone internal ROs.

The benefits of this change include:

- STS training requirements align with the service work conducted in the dealership.
- Dealers will know three months before the end of the year what their dealer size and STS requirements will be the following year.
- Due to differences between VINs sold and ROs, dealer sizes may change to a different group. Therefore, a dealer's new size will determine the STS requirements for the following year.

A business rule prevents dealers from changing more than one size per year.

Additional Information

- A change in groups cannot exceed more than one group per year.
 - Example: In 2019, Hometown Chevrolet was part of Group A. For 2020, Hometown Chevrolet should move into Group C based on their RO count. However, because of the one-step business rule, this dealership is placed into Group B for 2020.
- The dealer groups based on RO count will only be used for STS requirements.
- If RO count is not available, the dealer's STS requirements will default to VINs sold until sufficient RO count data is obtained.
- If dealers have a concern with their grouping, they should share these concerns with their District Manager–Aftersales (DMA).

Time Line for Dealer Changes

DATE	DETAILS
September, current year	Dealers notified of pending changes via GlobalConnect message.
October, current year	District Manager-Aftersales (DMA) notifies dealers if their group will change for STS requirements.
January, new year	STS requirements based on Repair Order (RO) count become effective.

Dealer Group Sizes

3

Dealer Group	RO Count
А	1-4,179
В	4,180 - 8,239
с	8,240 - 14,839
D	14,840 - 27,469
E	27,470+

Minimum Number of Technicians Required

This chart identifies the minimum number of technicians required to meet STS.

	Service Category	А	В	С	D	E
1	Emerging Issues	1	1	1	1	1
2	Fundamentals	All	All	All	All	All
3	Engine Repair	1	1	2	2	3
4	Automatic Transmission/Transaxle	2	2	2	2	3
5	Steering and Suspension	1	1	2	3	4
6	Electrical/Electronics Systems	1	2	3	4	5
7	Heating, Ventilation, and Air Conditioning (HVAC)	2	2	2	2	2
8	Brakes	1	1	2	2	3
9	Engine Performance	1	2	3	4	5
10	Manual Drivetrain and Axle	1	1	1	2	3
11	Diesel Engine Performance	2	2	2	2	2
12	Mechanical/Electrical Body Reapir	1	1	2	2	2
13	Advanced Technology Vehicles	1	1	1	1	1
14	Body Structural Repair (I-CAR)	1	1	1	1	1
15	Paint and Refinish	1	1	1	1	1
16	Medium Duty	1	1	1	1	1

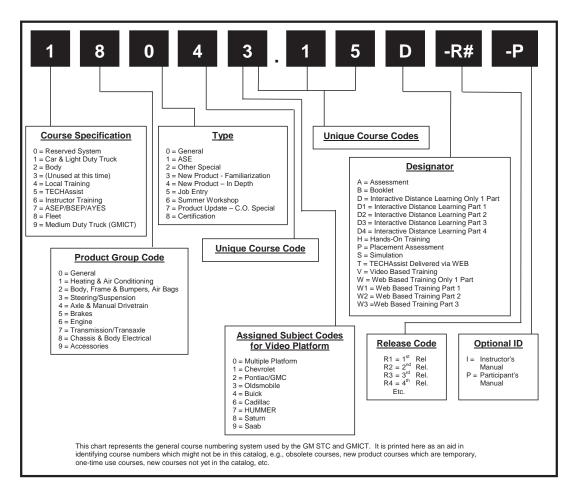


The Recommended Course Sequence

Whether the service technician is trying to meet the STS requirements for training or to achieve MTC, the Learning Path provides the recommended sequence for taking course components in a Certification Area. The order for taking the course components is from the top to the bottom of the Learning Path. Please note that the course is in the recommended learning sequence, but the components are not in the correct completion order.

Course Numbering System

GM STC training course numbers use the following system:





Path to 100% STS

The Path to 100% STS button on the Center of Learning home page improves the ease of navigating the LMS and provides convenient access for enrolling and measuring progress toward achieving 100% STS.

 TECHNICAL CERTIFICATION
 PATH TO 100% STS

 January 14, 2020
 PATH TO 100% STS

Capabilities and Benefits

Click on Path to 100% to view the STC Service Area, STS percentages, and Bronze, Silver, Gold and Master Technician Certification status for each STS category you've built a Learning Path for. To view the Learning Path, click on the STC Service Area category.

	STS	Bronze	Silver	Gold	MTC
Fundamentals	0%	Ν	NA	NA	Ν
Fundamentals - Tech Apprentice (Display Only)	0%	Ν	NA	NA	Ν
Emerging Issues	0%	NA	Ν	Ν	Ν
Engine Performance	0%	NA	Ν	Ν	Ν
Diesel Engine Performance	0%	NA	Ν	Ν	Ν
Engine Repair	0%	NA	Ν	Ν	Ν
Electrical/Electronics	0%	NA	Ν	Ν	Ν
Manual Drivetrain & Axle	0%	NA	Ν	Ν	Ν
Automatic Transaxle/Transmission	0%	NA	Ν	Ν	Ν

Reserve a Seat

Today, service technicians are required to complete each prerequisite prior to enrolling in VCT or hands-on courses. We've introduced the Reserve a Seat functionality for technical training in the Center of Learning. This function allows the proactive scheduling of training prior to completing prerequisites.

Benefits of this function include:

- Session selections based on preferred training center, desired completion date and participant's schedule
- A single click reserves a seat for your desired course as well as all associated prerequisites
- Visibility of all scheduled sessions and corresponding prerequisites
- You will receive email reminders identifying pending prerequisites



Service Training Planner

The Service Training Planner builds on the Path to 100% button and gives Service Managers unprecedented ability to customize how they manage service training by helping them create a training plan for the year. For instance, Service Managers can train just for STS requirements or for Depth in one or more areas. They can even identify the specific technician to be trained for STS and Depth for each service area. And to help keep the training plan on track, the Center of Learning website auto generates reminder emails once per week until the Service Training Planner is complete.



Service Manager Capabilities and Benefits

- Proactively create an annual customized training plan for your dealership
- Set STS goals, by service area, for your dealership technicians
- Identify which technicians you'd like trained for STS and which you'd like trained for Depth
- Easily identify which technician needs what training to help your dealer reach its STS goals
- Identify which technicians are your candidates for Master Technician Certification (MTC)

ASE Certification Information

GM STC requires all new service technicians to provide ASE with their LearnerID to allow certification status from the ASE website (www.ASE.com) to transfer into GM's training website (www.centerlearning.com). Follow directions below to verify that you've allowed your status to be released to GM.

To create an ASE profile, click on the "Create myASE Account" link on the ASE portal home page (www.ase.com); provide ASE with your LearnerID (not 9-digit GMIN).

About myASE

Registering for an ASE Certification Test and scheduling a testing appointment is more convenient than ever with a myASE account. Simply log in to myASE or click "Create myASE Account" to set up your account. If you don't remember your username or password, click "Forgot password?" to reset.

If you have ever registered for or taken an ASE Certification Test before, your account already exists. Search for your account by providing your first and last names, date of birth, and the last four digits of your social security number. Once you have identified your record, create a username and password. If you are unable to find a

Userna	ame		
Passw	ord		
LOG	IN	Forgot pa	assword

record match and have previously registered for an ASE Test, contact ASE Customer Service at 1-800-390-6789 for assistance instead of creating a duplicate account.



The Learner ID is displayed and found on your personal Profile page:

111 121	2	N	To add this participant, apter the appropriate information and click submit to save your chappen	έ.
			denotes required fields	
			erson ID reate Date 5/6	2019 1:05:06 PM
				2019 8:55:41 AM
		Last	ast Name *	
		First	rst Name *	
		Mide	iddle Name	
		GMI	MIN	

To allow your "Certified" status to be released to GM, you must:

- 1. Log on to <u>www.ASE.com</u> and your myASE account.
- 2. Check the box for "Release my ASE status to others" found on the Education & Preferences screen under the Profile tab.

	Address and Contact Information	atically sent to the e-mail address below immediately afte			
you fini unique	Education & Preferences	aucany sent to the e-mail address below inimediately are			
	"Release my ASE status to others" - With your permission, ASE confirms the test areas that you have passed upon specific request. We do not share your personal information. If you uncheck this box we cannot release your certification status to your employer, OEM or other group or individual. This may prevent you from being reimbursed for tests, participating in recognition programs, or accessing service information, etc. Education - Highest Level of Education Completed				
	Education	cu			
	Education	High School Graduation Year (YYYY)			
	Education				
	Education	High School Graduation Year (YYYY)			



This process enables ASE to properly identify the service technician as GM affiliated and supply the appropriate ASE certification information to GM STC. Once this change is made, allow 1-2 weeks for your ASE certification status to be visible within the Center of Learning training website. If up-to-date ASE certification records are not showing in www.centerlearning.com four weeks after the most recent testing, the service technician should contact ASE at www.ase.com and update ASE's records with their LearnerID. Contact ASE Customer Service at (703) 669-6600 between 8 a.m. and 5 p.m. Eastern time, Monday through Friday, with questions.

View Available Dealer Reports

Service Managers can view changes to STS requirements for 2019 and many other useful Dealer Reports. Select Reports from the home page of www.centerlearning.com and choose from:

- Dealer Reports
- Wholesale Reports
- Enrollment Reports

 Image: Second state of the corresponding link. Image: Second state of the corresponding link.					
Dealer Reports					
REPORT NAME	DESCRIPTION				
(GM) Dealer Certification Progress Report - 2019	Shows breakdown of certification course completion by dealership - job position - employee (Non- Technical)				
(GM) Service Training Standards (STS) Report - 2019	GM STS shows percentage completed weekly by dealership				
Course Completion Report	Course completion summary and detail information				
Dealer Enrollment Summary	Shows the status of all training events within a dealership (per student, per course.)				
Enrollment Report	Enrollment information and waitlist totals per course session and enrollment information by student.				
Enrollment Summary (LOC)	Returns enrollment info by training center				
Technician Training Gap Analysis Report	Show gaps in training to both MTC and STS				
Training Recommendations	Recommends courses for top technicians to meet MTC or for dealer to meet STS. Also recommends all Non-Technical certification courses by position.				



2020 Dealer Divisional STS and MTC Requirements

STS requirements for each of the 15 service categories and Medium Duty are listed on the following pages.

Each category table indicates the course requirements for 2020 Dealer Divisional STS as indicated by (\blacklozenge) and GM MTC as indicated by (\blacklozenge). Required courses are needed to meet the Dealer Divisional STS and for certification. Supplemental courses (\diamondsuit) provide additional content to enhance the curriculum and improve the service technician's performance but are not part of the Dealer Divisional STS requirements or certification.

Dealer Divisional Service Training Standards

Service technicians who successfully complete all of the STS requirements (♠) within each category for a Division will earn Divisional Certification (Buick, GMC, etc.) for that Division.

GM Master Technician Certification

GM MTC, like ASE Certification, is common across all Divisions. Service technicians who successfully complete all GM MTC requirements (●) within each category will earn GM MTC across all Divisions for that category.

Since this certification is common, some courses required for GM MTC may not be found as part of the STS. Similarly, some courses required for the STS will not be part of the requirements for GM MTC.

Legend

Refer to the legend below for references contained on the following Learning Path pages.

A = Assessment B = Buick C = Chevrolet D = VCT G = GMC H = Hands-On K = Cadillac V = VOD W = WBT

Service Category Requirements

The following pages define requirements and learning paths (excluding Emerging Issues) for each of the service categories. Note: please make note of those learning paths and courses that are required to achieve STS and maintain MTC/WCT status.



1. Emerging Issues

These monthly GM Service Know-How Seminars provide service/technical information on current issues and GM certified repairs. In many cases, an Emerging Issues seminar may provide notification to technicians of a concern and the current attempts to address the related issues.

The GM Service Know-How Emerging Issues seminars feature guest Subject Matter Experts who discuss, and/or demonstrate, a service-related topic. Email questions from the technician audience may be addressed as well.



Topics that may be of interest to Service Consultants are identified by an "SC" icon in the lower right corner of the screen. By calling out these topics, Emerging Issues hopes to help Service Consultants identify customer concerns that may not require a trip to the service bay.

Emerging Issues is only available as a streaming video on GM's www.centerlearning.com.

Emerging Issues seminars, and a great deal of other technical video content, can be accessed by logging on to www.gmglobalconnect.com and selecting the Center of Learning website.

STS Requirements

The GM Service Technical College has made Emerging Issues a 2020 STS requirement for Chevrolet, GMC, Buick and Cadillac dealers. To satisfy this requirement, ALL dealerships are required to have at least one technician complete each of the twelve 2019 Emerging Issues courses in order to achieve 100% in the Emerging Issues category.

2020 Emerging Issues courses are future 2020 STS requirement, meaning they will be a STS requirement in 2021. ALL dealerships will be required to have at least one technician complete each of the twelve 2019 Emerging Issues courses in order to achieve 100% in the Emerging Issues category. Due to the great benefit to dealers, however, we recommend all technicians watch the latest video each month. This equips technicians with the information they need to achieve Fix It Right the First Time!

Note: Completion of current Emerging Issues contributes to the overall scoring of the revamped 2020 Mark Of Excellent (MOE) program. Refer to the Mark of Excellence tile in the App Center of GlobalConnect for details.

The intent of the program is to ensure that the technician takes the training this year in order to be STS complete the following year. To receive credit for completion, the technician must:

- View the seminar at www.gmglobalconnect.com and select the Center of Learning website.
- Pass the test for this course.

Technicians and service consultants interested in asking questions of the Subject Matter Experts, or in making suggestions for topics, should send an email to EI@Raytheon.com.



2. Fundamentals

GM

FUNDAMENTALS

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Cours	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
SCFGM.020W1	General Motors Dealer Safety Overview	0.3	٠	•	+	•
18400.00W	High Voltage System Safety	0.5	٠	٠	•	٠
FRPCS.020W1	Understanding the Importance of Cyber Security	0.3	٠	٠	•	٠
VMVCC.C18W	Documenting the Three Cs of a Job Card	0.3	٠	٠	•	٠
F1PAH.020W1	Dealership Anti Harassment: Treating People Right	0.3	٠	٠	•	٠
SSM1P.017W3	Cadillac Moments: Principles of an Exceptional Experience - for Technician	0.3		٠		
SSM1P.017W2	Cadillac Moments in the Service Lane: Best Practices	0.3		٠		
10040.15V	Techline Connect Overview and Installation	0.1	٠	٠	•	٠
10041.12W-R2	Service Information (SI) Overview #	2.0	+•	٠٠	٠٠	+•
16048.25W-R3	Multiple Diagnostic Interface (MDI) Familiarization #	1.0	+•	*•	٠٠	+•
16048.31W	Multiple Diagnostic Interface 2 #	0.5	+•	٠٠	٠٠	+•
16048.30W-R3	Global Diagnostic System (GDS) 2 #	1.5	+•	٠٠	٠٠	+•
16048.40W	Tech2Win Diagnostic Tool #	0.5	٠	٠	•	٠
22048.55V	Preventing Unintended Airbag Deployment	0.1	٠	٠	•	٠
18043.21W	Electrical/Electronics Stage 1	1.0	+•	٠٠	٠٠	+•
18043.22W	Electrical/Electronics Stage 2	1.0	+•	٠.	٠٠	+•
18043.23W	Electrical/Electronics Stage 3	1.0	+•	٠.	٠٠	+•
18043.24W	Electrical/Electronics Stage 4	1.0	+•	٠.	٠٠	+•
18043.25W	Electrical/Electronics Stage 5	1.0	+•	٠.	٠٠	+•
18043.26W	Electrical/Electronics Stage 6	1.0	+•	٠.	٠٠	+•
18044.20W1	GM Global Electrical Systems 1	1.0	+•	٠.	+•	+•
18044.20W2	GM Global Electrical Systems 2	0.5	+•	٠.	+•	+•
10216.14V	Service Programming System Update #	0.5	+•	••	٠٠	+•
VRPFA.020W1	Field Action Safety and Non-Compliance Recall Best Practices	0.3	+	•	•	٠
VMVFA.019W5	Handling Field Actions for Service Technicians	0.3	+	٠	•	٠
10217.13V	Proper Handling of Field Actions With Programming Events	0.5	•	٠	•	٠
16048.36W-R2	Databus Diagnostic Tool #	0.5	+•	٠.	٠٠	+•
18400.30W-R2	Introduction to Hybrid & Electric Vehicles #	1.0	•	•	•	٠
VMVDC.M17W2	Dealer Case Management: Technical Assistance Center (TAC) Case Handling	0.4	•	٠	•	٠

# Not Required for the Body Structural Repair Area						
			Cara	nd L/D	Truck	
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders	Г	Α	В	С	D	E
To Meet Dealer Minimum Divisional Service Training Standards		AII	All	All	All	All

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Fundamentals area to the STS for Fundamentals. Service technicians who successfully complete Fundamentals earn Bronze certification.

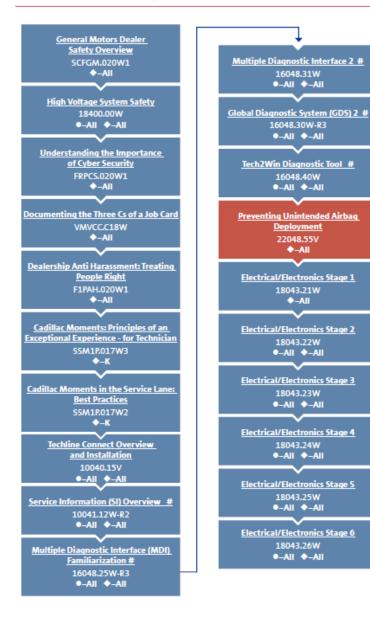
Note: Without 100% of service technicians trained in Fundamentals, the dealership will never reach 100% STS.

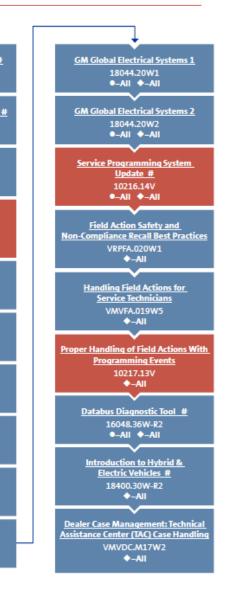


FUNDAMENTALS

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Note: Although ASE Certification is not a prerequisite to begin this training program, it is, however, a requirement before GM Master Technician Certification can be granted.





B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

<u>GM</u>



3. Engine Repair

GM

ENGINE REPAIR

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

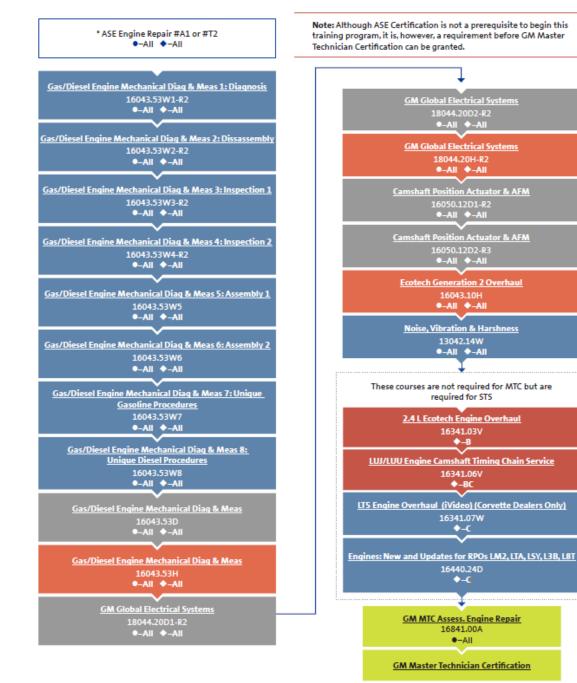
Required Cours	es Needed by Division	Training Time (hrs)	Buick	Cad	lillac	Chev	rolet	G	мс
ASE Engine Repai	r #A1	1.0	*•		••	•	•	4	•
16043.53W1-R2	Gas/Diesel Engine Mechanical Diag & Meas 1: Diagnosis	1.0	**		••	•	•	•	•
16043.53W2-R2	Gas/Diesel Engine Mechanical Diag & Meas 2: Dissassembly	1.0	+•		••	•	•	•	••
16043.53W3-R2	Gas/Diesel Engine Mechanical Diag & Meas 3: Inspection 1	1.0	+•		••	•	•	•	••
16043.53W4-R2	Gas/Diesel Engine Mechanical Diag & Meas 4: Inspection 2	1.0	*•		••	•	•	•	••
16043.53W5	Gas/Diesel Engine Mechanical Diag & Meas 5: Assembly 1	1.0	+•		••	•	•	4	••
16043.53W6	Gas/Diesel Engine Mechanical Diag & Meas 6: Assembly 2	1.0	+•		••	•	•	•	••
16043.53W7	Gas/Diesel Engine Mechanical Diag & Meas 7: Unique Gasoline Procedures	1.0	*•		••	•	•	•	••
16043.53W8	Gas/Diesel Engine Mechanical Diag & Meas 8: Unique Diesel Procedures	1.0	+•	•	••	•	•	•	•
16043.53D	Gas/Diesel Engine Mechanical Diag & Meas	2.0	+•		••	•	•	4	•
16043.53H	Gas/Diesel Engine Mechanical Diag & Meas	16.0	+•		••	•	•	4	••
18044.20D1-R2	GM Global Electrical Systems	1.5	*•	•	•	•	•	4	•
18044.20D2-R2	GM Global Electrical Systems	1.5	+•	•	•	•	•	4	•
18044.20H-R2	GM Global Electrical Systems	16.0	+•	•	•	•	•	•	•
16050.12D1-R2	Camshaft Position Actuator & AFM	2.0	+•	•	•	•	•	4	•
16050.12D2-R3	Camshaft Position Actuator & AFM	2.0	+•	•	•	•	•	4	•
16043.10H	Ecotech Generation 2 Overhaul	8.0	+•	•	•	•	•	4	•
13042.14W	Noise, Vibration & Harshness	2.0	٠٠	•	••	•	•	4	•
16841.00A	GM MTC Assess. Engine Repair	8.0	•		•		•		•
16341.03V	2.4 L Ecotech Engine Overhaul	1.0	٠						
16341.06V	LUJ/LUU Engine Camshaft Timing Chain Service	0.5	•				٠		
16341.07W	LT5 Engine Overhaul (iVideo) (Corvette Dealers Only)	1.0					٠		
16440.24D	Engines: New and Updates for RPOs LM2, LTA, LSY, L3B, L8T	1.5	٠		•		•		٠
						Cara	nd L/D	Truck	
Min. Number of 1	echnicians Based on Annual GM Vehicle Repair Orders				Α	В	C	D	E
To Meet Dealer N	Ainimum Divisional Service Training Standards				1	1	2	2	3

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Engine Repair area to the STS for Engine Repair. This means that the dealer STS Report may show a percentage greater than 100% in Engine Repair.



ENGINE REPAIR

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

ΗM



4. Automatic Transmission/Transaxle



AUTOMATIC TRANSMISSION/TRANSAXLE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Cours	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Automatic Tr	ansmission #A2	1	+•	٠.	٠٠	+•
18044.20D1-R2	GM Global Electrical Systems	1.5	+•	٠.	٠٠	٠.
18044.20D2-R2	GM Global Electrical Systems	1.5	٠.	٠.	٠.	٠.
18044.20H-R2	GM Global Electrical Systems	16.0	*•	٠.	٠٠	٠.
18044.23V	Data Communication Diagnostics Overview	0.5	+•	٠.	٠٠	+•
17041.59W1	Automatic Transmission: Principles of Operation	1.0	٠.	٠.	٠٠	٠.
17041.59W2	Automatic Transmission: Mechanical Components	1.0	٠.	٠.	٠٠	٠.
17041.59W3	Automatic Transmission: Hydraulic Operation	1.0	+•	٠.	*•	+•
17041.59W4	Automatic Transmission: Inputs	0.8	٠.	٠.	٠٠	+•
17041.59W5	Automatic Transmission: Outputs	0.5	*•	٠.	*•	*•
17041.59W6	Automatic Transmission: Powerflow	1.0	+ •	٠.	٠.	*•
17041.59W7	Automatic Transmission: Diagnosis & Service	1.0	*•	٠.	٠.	٠.
17041.58D1	Automatic Transmission Diagnosis & Service	2.0	٠.	٠.	٠.	٠.
17041.58D2	Automatic Transmission Diagnosis & Service	2.0	++	٠.	٠.	٠.
17041.58H	Automatic Transmission Diagnosis & Service	16.0	+•	٠.	٠.	٠.
14043.17W1	Passenger Car All-Wheel Drive 1	1.0	++	٠.	٠.	٠.
14043.25W1	Truck 4WD/AWD Operation and Diagnosis 1	1.0	+•	٠.	*•	++
13042.14W	Noise, Vibration & Harshness	2.0	++	٠.	٠.	٠.
16044.23W1	Engine Performance: Air Management	1.0	+•	٠.	٠.	٠.
16044.23W2	Engine Performance: Fuel and Delivery	1.0	+•	٠.	٠.	٠.
16044.23W3	Engine Performance: Ignition	0.5	٠.	٠.	٠.	٠.
16044.23W4	Engine Performance: Electronic Control Systems and Emission Systems	2.0	٠٠	٠٠	٠٠	••
16044.23W5	Engine Performance: Troubleshooting	1.0	+•	٠.	٠.	+•
17041.72W	8-Speed Automatic Transmission Overview	1.0	++	٠.	٠.	٠.
17041.67H	8-Speed Automatic Transmission/Transaxle Mechanical Service	16.0	+•	••	••	+•
17041.73W	Automatic Transmission Characterization Programming	0.5	+•	••	••	+•
17041.74W	ETRS Operation and Service	0.8	++	٠.	••	*•
17840.00A	GM MTC Assess. A.T.	8.0	٠	•	•	•
17041.55V	6T70/75 Automatic Transaxle Unit Repair	1.0	+•	•	*•	+•
17041.70V	8L90 Automatic Transmission Unit Repair	0.9	٠	•	•	٠
17041.77W	9-Speed Automatic Transmission Overview	1.0	٠	•	•	٠
17041.75W	9T50 Automatic Transmission Unit Repair (iVideo)	1.0		•	•	
17041.79W	10-Speed Automatic Transmission Overview	0.8		•	•	٠
17041.80W	10L90 Automatic Transmission Unit Repair (iVideo)	1.0		•	•	٠
17041.85V	10L1000 Hydra-Matic Transmission	0.5			•	٠
17340.16V	Allison LCT1000 Unit Repair	1.0			•	٠
17440.18D	Transmissions: New & Updates for CVT 250, 9-Speed ETRS, and 8-Speed - RWD Updates	2.0	٠	•	•	•
		Training Time				

rses Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
Courses (enrichment)					
Transmissions New & Update: 6T70/75 Intro & Ser Procedures	3.0	٠		*	*
4L60/65/70 Auto Transmission Unit Repair	1.0	*	۰.	*	۰.
	Courses (enrichment) Transmissions New & Update: 6T70/75 Intro & Ser Procedures	rses Needed by Division (hrs) Courses (enrichment) Transmissions New & Update: 6T70/75 Intro & Ser 3.0 Procedures	rses Needed by Division (hrs) Buick Courses (enrichment) Transmissions New & Update: 6T70/75 Intro & Ser Procedures 3.0	rses Needed by Division (hrs) Buick Cadillac Courses (enrichment) Transmissions New & Update: 6T70/75 Intro & Ser Procedures 3.0 *	Buick Cadillac Chevrolet Courses (enrichment) Transmissions New & Update: 6T70/75 Intro & Ser 3.0 \$ \$

Min. Number of Technicians Based on Annual GM Vehicle Repair Orders To Meet Dealer Minimum Divisional Service Training Standards

]		Car a	nd L/D	Truck	
	Α	В	С	D	E
	2	2	2	2	3



The smaller table on the previous page indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Automatic Transmission/Transaxle area to the STS for Automatic Transmission/Transaxle. This means that the dealer STS Report may show a percentage greater than 100% in Automatic Transmission/Transaxle.

GM	OMATIC TRANSMISSION/ GM Master Technician Certification Requireme M Dealer Minimum Divisional Service Training Sta	nts (MTC = •)
	te: Although ASE Certification is not a prerequisit quirement before GM Master Technician Certificat	
GM Global Electrical Systems 18044.20D1-R2	*	
●-AII ◆-AII	Automatic Transmission Diagnosis &	ETRS Operation and Service
~~~~	Service 17041.58H	17041.74W ●–All ◆–All
<u>GM Global Electrical Systems</u> 18044.20D2-R2	●-All ◆-All	
18044.20D2-K2 ●_All ◆_All	Passenger Car All-Wheel Drive 1	These courses are not required for MTC
	Passenger Car All-Wheel Drive 1 14043.17W1	but are required for STS
GM Global Electrical Systems	14045,1/₩1 ●-All ◆-All	6T70/75 Automatic Transaxle Unit Repair
18044.20H-R2 ●-AII ◆-AII		17041.55V
	Truck 4WD/AWD Operation	♦-CGB
Data Communication	and Diagnosis 1	
Diagnostics Overview	14043.25W1 ●_All ◆_All	8L90 Automatic Transmission Unit Repair
18044.23V		17041.70V
●_AII ◆_AII	Noise, Vibration & Harshness	_AII
Automatic Transmission: Principles of	13042.14W	
<u>Operation</u>	●_AII ◆_AII	9-Speed Automatic Transmission Overview
17041.59W1 ●–All ◆–All	Engine Performance: Air Management	17041.77W ♦–All
	16044.23W1	
Automatic Transmission: Mechanical	●_AII ◆_AII	9T50 Automatic Transmission Unit Repair
Components		<u>(iVideo)</u>
17041.59W2 ●-All ◆-All	Engine Performance: Fuel and Delivery	17041.75W
	16044.23W2	♦-КС
Automatic Transmission: Hydraulic	●_AII ◆_AII	
Operation 17044 FOUR		<b>10-Speed Automatic Transmission Overview</b>
17041.59W3 ●–All ◆–All	Engine Performance: Ignition	17041.79W
	16044.23W3 ●_Ali ◆_Ali	<b>♦_KCG</b>
Automatic Transmission: Inputs		
17041.59W4	Engine Performance:	<u>10L90 Automatic Transmission Unit Repair</u> (iVideo)
	Electronic Control Systems	17041.80W
	and Emission Systems	↓ -KCG
Automatic Transmission: Outputs	16044.23W4	
17041.59W5 ●-All ◆-All	●_AII ◆_AII	10L1000 Hydra-Matic Transmission
	Engine Performance: Troubleshooting	17041.85V
Automatic Transmission: Powerflow	16044.23W5	<b>♦-C</b> G
17041.59W6	●_AII ◆_AII	Allison LCT1000 Unit Repair
●-All ◆-All	~~~~	17340.16V
Automatic Transmission: Diagnosis &	8-Speed Automatic	↓-KCG
Service	Transmission Overview	
17041.59W7	17041.72W ●–All ◆–All	Transmissions: New & Updates for CVT 250,
●_AII ◆_AII		9-Speed ETRS, and 8-Speed RWD Updates
Automatic Transmission: Diagnosis &	8-Speed Automatic Transmission/	17440.18D ♦–All
Service	Transaxle Mechanical Service	-All
17041.58D1	17041.67H	
	●_AII ◆_AII	GM MTC Assess. A.T.
Automatic Transmission:	Automatic Transmission	17840.00A
Diagnosis & Service	Characterization Programming	●-All
17041.58D2 ●-All ◆-All	17041.73W	GM Master Technician Certification
	●–AII ◆–AII	om master recinician certification

B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions



### 5. Steering and Suspension

GM

#### STEERING AND SUSPENSION

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

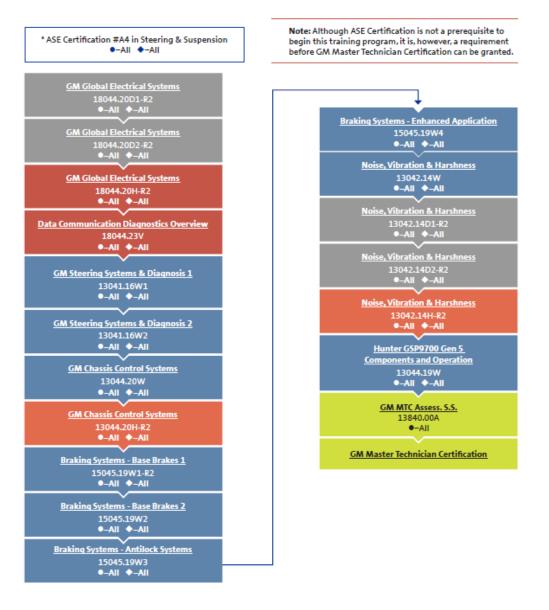
Required Course	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Steering and	Suspension #A4	1.0	+•	٠.	٠٠	+•
18044.20D1-R2	GM Global Electrical Systems	1.5	<b>*•</b>	٠.	٠٠	*•
18044.20D2-R2	GM Global Electrical Systems	1.5	+•	<b>*•</b>	••	**
18044.20H-R2	GM Global Electrical Systems	16.0	+•	٠.	••	*•
18044.23V	Data Communication Diagnostics Overview	0.5	<b>*•</b>	٠.	••	٠.
13041.16W1	GM Steering Systems & Diagnosis 1	1.0	<b>*•</b>	٠.	••	٠.
13041.16W2	GM Steering Systems & Diagnosis 2	1.0	+•	<b>*•</b>	••	**
13044.20W	GM Chassis Control Systems	2.0	<b>*•</b>	٠.	•	٠.
13044.20H-R2	GM Chassis Control Systems	8.0	<b>*•</b>	٠.	••	٠.
15045.19W1-R2	Braking Systems - Base Brakes 1	0.8	+•	٠.	••	٠.
15045.19W2	Braking Systems - Base Brakes 2	0.7	+•	٠.	••	**
15045.19W3	Braking Systems - Antilock Systems	1.0	+•	٠.	••	**
15045.19W4	Braking Systems - Enhanced Application	1.0	++	••	••	+•
13042.14W	Noise, Vibration & Harshness	2.0	++	+•	٠.	+•
13042.14D1-R2	Noise, Vibration & Harshness	1.5	++	+•	٠٠	+•
13042.14D2-R2	Noise, Vibration & Harshness	1.5	++	+•	٠٠	+•
13042.14H-R2	Noise, Vibration & Harshness	8.0	++	<b>*•</b>	••	+•
13044.19W	Hunter GSP9700 Gen 5 Components and Operation	1.0	+•	+•	٠٠	+•
13840.00A	GM MTC Assess. S.S.	8.0	٠	•	•	•
					Car and L/D	
	echnicians Based on Annual GM Vehicle Repair Orders			A	B C	DE
To Meet Dealer M	inimum Divisional Service Training Standards			1	1 2	3 4

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Steering and Suspension area to the STS for Steering and Suspension. This means that the dealer STS Report may show a percentage greater than 100% in Steering and Suspension.



#### STEERING AND SUSPENSION

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

<u>GM</u>



### 6. Electrical/Electronics Systems



#### ELECTRICAL/ELECTRONICS SYSTEMS

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Course	s Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Electrical / Ele	ctronics #A6	1.0	+•	٠٠	٠٠	٠٠
18044.20D1-R2	GM Global Electrical Systems	1.5	<b>*</b> •	٠٠	••	٠٠
18044.20D2-R2	GM Global Electrical Systems	1.5	<b>*•</b>	٠.	••	٠.
18044.20H-R2	GM Global Electrical Systems	16.0	<b>*•</b>	<b>*•</b>	٠.	<b>*•</b>
18043.07H-R2	Electrical/Electronics Terminals and Connectors Systems	8.0	*•	*•	٠٠	٠٠
18044.50H	Intermittent Electrical Concerns Diagnosis	8.0	<b>*•</b>	<b>*•</b>	••	٠.
16041.10W1	Battery Systems	1.0	<b>*•</b>	٠٠	••	٠٠
16041.10W2	Charging Systems	0.8	<b>*•</b>	٠.	••	٠.
16041.10W3	Starting Systems	0.5	+•	٠.	٠.	٠٠
18044.25H-R2	Body Electrical Accessory Systems	8.0	+•	٠.	٠.	٠.
18044.23V	Data Communication Diagnostics Overview	0.5	+•	٠٠	٠٠	٠٠
18044.40W	Vehicle Network Security	0.3	+•	٠.	٠.	٠٠
18044.30H-R4	Data Communication Diagnosis	8.0	+•	٠٠	٠٠	٠٠
19047.09W1	Entry and Security Systems: Active Systems	1.0	+•	٠.	٠.	٠٠
19047.09W2	Entry and Security Systems: Passive Systems	1.0	+•	٠.	٠.	٠٠
22048.45W1	GM Safety Systems 1: Restraints	0.5	٠.	٠.	٠.	٠.
22048.45W2	GM Safety Systems 2: Supplemental Restraints	1.0	٠.	٠.	٠.	٠.
22048.45W3	GM Safety Systems 3: Object Detection	1.0	٠.	٠.	٠.	٠.
22048.45W4	GM Safety Systems 4: Warning Systems	1.0	++	٠.	٠.	٠.
22048.45W5	GM Safety Systems 5: Active Safety Systems	0.5	٠.	٠.	٠.	٠.
22048.45W6	GM Safety Systems 6: Enhanced Safety Systems	1.0	++	٠.	٠.	٠.
22048.42H	GM Safety Systems	16.0	٠.	٠.	٠.	٠٠
19047.23W1	Infotainment Systems 1: Radios	1.5	٠.	٠.	٠.	٠.
19047.23W2	Infotainment Systems 2: Speakers	1.0	٠.	٠.	٠.	٠.
19047.23W3	Infotainment Systems 3: Peripheral Connect	0.8	٠.	٠.	٠.	٠.
19047.23W4	Infotainment Systems 4: Rear Enter Systems	0.8	٠.	٠.	٠.	٠.
19047.23W5	Infotainment Systems 5: Head-up Display	0.5	٠.	٠.	٠.	٠.
19047.23W6	Infotainment Systems 6: Integrated Center Stack	0.8	٠.	٠.	٠.	٠.
19047.23W7	Infotainment Systems 7: Next Gen Info & Navigation Systems	1.0	+•	••	••	••
19047.23W8	Infotainment Systems 8: Info Systems IOR, IOS, IOU, IOT	1.0	++	••	••	++
19047.20H	Entertainment Systems	16.0	+•	٠.	٠٠	••
19047.22D-R2	Infotainment Operation and Diagnosis	2.0	++	٠.	٠.	٠.
19047.23D-R2	MOST Network Diagnostics and Infotainment System Programming	2.0	+•	••	••	++
19047.23H	Infotainment Operation and Diagnosis	8.0	+•	٠.	٠.	٠.
19040.39W1	OnStar® Systems 1	1.0	٠.	٠.	٠٠	٠٠
19040.39W2	OnStar® Systems 2	1.0	+•	٠.	٠.	٠٠
19040.39W3	OnStar® Systems 3	0.5	٠.	٠.	٠.	٠٠
18840.00A	GM MTC Assess. E.E.	8.0	٠	•	٠	•
22048.60V	Recall #14030 Wire Repair	0.3	•		•	•



Ε

5

#### **ELECTRICAL/ELECTRONICS SYSTEMS**

GM Master Technician Certification Requirements (MTC = •) GM Dealer Minimum Divisional Service Training Standards (STS = •)

Required Course	s Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC		
22048.44W	Vehicle Rollover Protection System	0.5	•					
22048.50W-R2	Super Cruise	1.0		•				
22048.51D	Super Cruise Diagnosis	2.0		•				
16048.45W	Introduction to Digital Storage Oscilloscope	0.8	٠	•	•	+		
Supplemental Cou	rses (enrichment)							
18043.06H	Electrical/Electronics Sys. & DMM Usage	8.0	•	•	۰.	۰.		
					Car and L/D Truck			

 Min. Number of Technicians Based on Annual GM Vehicle Repair Orders
 A
 B
 C
 D

 To Meet Dealer Minimum Divisional Service Training Standards
 1
 2
 3
 4

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Electrical/Electronics Systems area to the STS for Electrical/Electronics Systems. This means that the dealer STS Report may show a percentage greater than 100% in Electrical/Electronics Systems.

### <u>GM</u>

<u>GM (</u>

<u>GM (</u>

<u>GM G</u>

Electrica

Interm

Body Ele

Data Co

<u>Ve</u>h

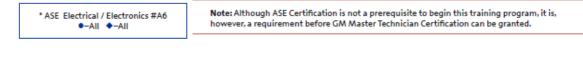
3

#### ELECTRICAL/ELECTRONICS SYSTEMS

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

-

-



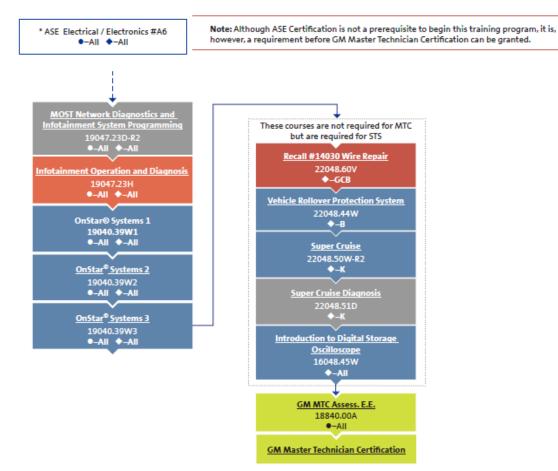
Global Electrical Systems	Puter Communication Plannation	· · · · · · · · · · · · · · · · · · ·
18044.20D1-R2	Data Communication Diagnosis	GM Safety Systems 2: Speakers
●_AII ◆_AII	18044.30H-R2	19047.23W2
	●_AII ◆_AII	●_AII ◆_AII
Global Electrical Systems		~
18044.20D2-R2	Entry and Security Systems:	Infotainment Systems 3: Peripheral
	Active Systems	<u>Connect</u>
	19047.09W1	19047.23W3
Global Electrical Systems	●–All ◆–All	●_AII ◆_AII
18044.20H-R2		~
●-AII ◆-AII	Entry and Security Systems:	Infotainment Systems 4: Rear Enter
~	Passive Systems	<u>Systems</u>
al/Electronics Terminals and	19047.09W2	19047.23W4
Connectors Systems	●_AII ◆_AII	●_AII ◆_AII
18043.07H-R2		~~~~
●-AII ◆-AII	GM Safety Systems 1: Restraints	Infotainment Systems 5: Head-up
· · · · ·	22048.45W1	<u>Display</u>
nittent Electrical Concerns	●_AII ◆_AII	19047.23W5
<u>Diagnosis</u>	GM Safety Systems 2: Supplemental	●_AII ◆_AII
18044.50H	Restraints	~~~~
●-All ◆-All	22048.45W2	Infotainment Systems 6: Integrated
	●_AII ◆_AII	Center Stack
Battery Systems		19047.23W6
16041.10W1	GM Safety Systems 3; Object Detection	●_AII ◆_AII
	22048.45W3	$\sim$
Character Contained	●_AII ◆_AII	Infotainment Systems 7: Next Gen Info
Charging Systems		& Navigation Systems
16041.10W2	Chi Cafata Castana A. Wandana Castana	19047.23W7
	GM Safety Systems 4; Warning Systems	●_AII ◆_AII
Starting Systems	22048.45W4	
16041.10W3	●_AII ◆_AII	Infotainment Systems 8: Info Systems
●_AII ◆_AII	GM Safety Systems 5; Active Safety	IOR, IOS, IOU, IOT
	Systems	19047.23W8
ectrical Accessory Systems	22048.45W5	●_AII ◆_AII
18044.25H-R2	●_AII ◆_AII	Entertainment Systems
●-AII ◆-AII		19047.20H
	GM Safety Systems 6; Enhanced Safety	●_AII ◆_AII
ommunication Diagnostics	<u>Systems</u>	
<u>Overview</u>	22048.45W6	
18044.23V	●–All ◆–All	Infotainment Operation and Diagnosi
		19047.22D-R2
	GM Safety Systems	●_AII ◆_AII
hicle Network Security	22048.42H	Y
18044.40W	●_AII ◆_AII	
●-All ◆-All		
	Infotainment Systems 1: Radios	Continue to Next Page
	19047.23W1	continue to Next rage
	●–All ◆–All	

B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions



#### ELECTRICAL/ELECTRONICS SYSTEMS

GM Master Technician Certification Requirements (MTC = •) GM Dealer Minimum Divisional Service Training Standards (STS = •)



### 7. Heating, Ventilation and Air Conditioning (HVAC)

<u>GM</u>

2

#### HEATING VENTILATION AND AIR CONDITIONING (HVAC)

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

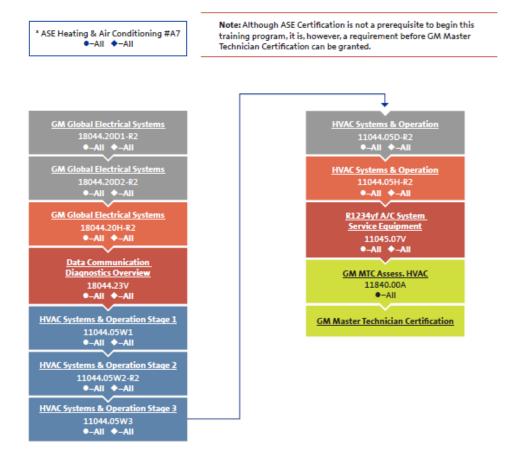
Required Course	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevro	let	GI	мс
ASE Heating & Air	Conditioning #A7	1.0	+•	+•			•	
18044.20D1-R2	GM Global Electrical Systems	1.5	++	٠.	+•		•	•
18044.20D2-R2	GM Global Electrical Systems	1.5	٠٠	٠.	+•		٠.	
18044.20H-R2	GM Global Electrical Systems	16.0	<b>*•</b>	٠.	• ••		••	
18044.23V	Data Communication Diagnostics Overview	0.5	+•	+•	+•		•	•
11044.05W1	HVAC Systems & Operation Stage 1	2.0	<b>*•</b>	٠.	+•	• •		•
11044.05W2-R2	HVAC Systems & Operation Stage 2	1.2	٠.	٠.	+•	<b>*• *</b> (		•
11044.05W3	HVAC Systems & Operation Stage 3	1.0	٠.	٠.	+•	••		•
11044.05D-R2	HVAC Systems & Operation	2.0	٠.	٠.	+•		•	•
11044.05H-R2	HVAC Systems & Operation	8.0	٠.	٠.	+•		٠	•
11045.07V	R1234yf A/C System Service Equipment	0.5	٠٠	٠.	+•		•	•
11840.00A	GM MTC Assess. HVAC	8.0	٠	٠	•		•	•
Min. Number of T	Min. Number of Technicians Based on Annual GM Vehicle Repair Orders					L/D1	ruck D	E
To Meet Dealer M	o Meet Dealer Minimum Divisional Service Training Standards				2	2	2	2

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the HVAC area to the STS for HVAC. This means that the dealer STS Report may show a percentage greater than 100% in HVAC.



#### HEATING VENTILATION AND AIR CONDITIONING (HVAC)

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

<u>GM</u>



#### 8. Brakes

GM

#### BRAKES

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Course	s Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Brakes #A5		1.0	+•	••	٠.	+•
18044.20D1-R2	GM Global Electrical Systems	1.5	••	٠.	٠.	٠.
18044.20D2-R2	GM Global Electrical Systems	1.5	++	٠.	<b>*•</b>	٠.
18044.20H-R2	GM Global Electrical Systems	16.0	++	••	<b>*•</b>	+•
18044.23V	Data Communication Diagnostics Overview	0.5	++	••	٠.	+•
15045.19W1-R2	Braking Systems - Base Brakes 1	0.8	++	••	<b>*•</b>	+•
15045.19W2	Braking Systems - Base Brakes 2	0.7	++	••	+•	+•
15045.19W3	Braking Systems - Antilock Systems	1.0	++	••	+•	+•
15045.19W4	Braking Systems - Enhanced Application	1.0	++	٠.	<b>*•</b>	+•
15045.18D1-R2	GM Braking Systems	2.0	+•	٠.	٠.	+•
15045.18D2	GM Braking Systems	2.0	+•	٠.	٠.	+•
15045.19H	GM Braking Systems	8.0	+•	٠.	٠.	+•
13042.14W	Noise, Vibration & Harshness	2.0	+•	٠.	٠٠	٠٠
15840.00A	GM MTC Assess. Brakes	8.0	٠	•	•	•
Min Number of Te	chnicians Based on Annual GM Vehicle Repair Orders			A	Car and L/D	Truck D E
	inimum Divisional Service Training Standards			1	1 2	2 3
to meet Dealer M	minum Divisional service training Standards			_ <b>_</b>	1 2	2 J

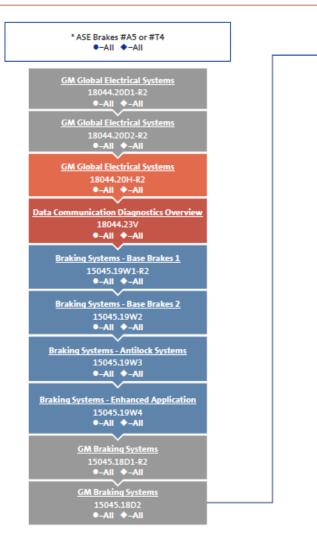
The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Brakes area to the STS for Brakes. This means that the dealer STS Report may show a percentage greater than 100% in Brakes.

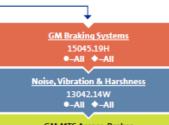


#### BRAKES

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Note: Although ASE Certification is not a prerequisite to begin this training program, it is, however, a requirement before GM Master Technician Certification can be granted.





GM MTC Assess. Brakes 15840.00A •-All

**GM Master Technician Certification** 

B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions



### 9. Engine Performance



#### ENGINE PERFORMANCE

GM Master Technician Certification Requirements (MTC = •) GM Dealer Minimum Divisional Service Training Standards (STS = •)

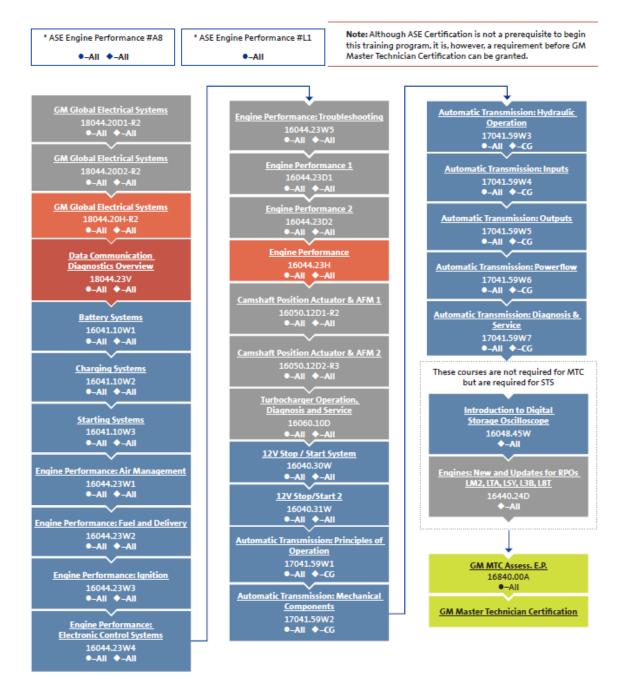
Required Cours	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Engine Perfo	mance #A8	1.0	٠٠	+•	+•	٠٠
18044.20D1-R2	GM Global Electrical Systems	1.5	٠.	٠.	<b>*•</b>	••
18044.20D2-R2	GM Global Electrical Systems	1.5	٠.	<b>*•</b>	٠.	٠.
18044.20H-R2	GM Global Electrical Systems	16.0	٠.	٠.	٠.	••
18044.23V	Data Communication Diagnostics Overview	0.5	٠.	+•	٠٠	••
16041.10W1	Battery Systems	1.0	٠.	٠.	<b>*•</b>	••
16041.10W2	Charging Systems	0.8	٠٠	٠٠	<b>*•</b>	+•
16041.10W3	Starting Systems	0.5	٠.	٠.	٠.	••
16044.23W1	Engine Performance: Air Management	1.0	٠.	٠.	٠.	٠٠
16044.23W2	Engine Performance: Fuel and Delivery	1.0	٠.	+•	٠٠	+•
16044.23W3	Engine Performance: Ignition	0.5	٠.	٠.	٠.	+•
16044.23W4	Engine Performance: Electronic Control Systems	2.0	٠.	٠.	٠.	٠٠
16044.23W5	Engine Performance: Troubleshooting	1.0	٠.	٠.	٠.	٠٠
16044.23D1	Engine Performance 1	2.0	٠.	٠.	٠.	٠٠
16044.23D2	Engine Performance 2	2.0	٠.	٠.	٠.	٠.
16044.23H	Engine Performance	16.0	٠.	٠.	٠.	٠.
16050.12D1-R2	Camshaft Position Actuator & AFM 1	2.0	٠.	٠.	٠.	٠.
16050.12D2-R3	Camshaft Position Actuator & AFM 2	2.0	٠.	٠.	٠.	٠.
16060.10D	Turbocharger Operation, Diagnosis and Service	2.0	٠.	٠.	٠.	٠٠
16040.30W	12V Stop / Start System	1.0	٠.	٠.	٠.	٠.
16040.31W	12V Stop/Start 2	0.7		٠	•	
17041.59W1	Automatic Transmission: Principles of Operation	1.0	٠.	٠.	٠.	٠٠
17041.59W2	Automatic Transmission: Mechanical Components	1.0	٠.	٠.	٠.	٠٠
17041.59W3	Automatic Transmission: Hydraulic Operation	1.0	٠.	٠.	٠.	٠٠
17041.59W4	Automatic Transmission: Inputs	0.8	٠.	٠.	٠.	٠٠
17041.59W5	Automatic Transmission: Outputs	0.5	٠.	٠.	٠.	٠٠
17041.59W6	Automatic Transmission: Powerflow	1.0	٠.	٠.	٠.	٠٠
17041.59W7	Automatic Transmission: Diagnosis & Service	1.0	٠.	٠.	٠.	٠٠
ASE Engine Perfo	mance #L1		٠	•	•	•
16840.00A	GM MTC Assess. E.P.	8.0	٠	•	•	•
16048.45W	Introduction to Digital Storage Oscilloscope	0.8	٠	٠	•	٠
16440.24D	Engines: New and Updates for RPOs LM2, LTA, LSY, L3B, L8T	2.0	•	•	•	•
					Car and L/D Ti	uck
Min. Number of T	echnicians Based on Annual GM Vehicle Repair Orders			A	B C	DE
	inimum Divisional Service Training Standards			1	2 3	4 5

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Engine Performance area to the STS for Engine Performance. This means that the dealer STS Report may show a percentage greater than 100% in Engine Performance.



#### ENGINE PERFORMANCE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

GM



### **10. Diesel Engine Performance**



#### DIESEL ENGINE PERFORMANCE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Course	s Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Light Vehicle D	Diesel Engines #A9	1.0	٠	•	٠٠	++
16041.10W1	Battery Systems	1.0	٠	•	٠٠	+•
16041.10W2	Charging Systems	0.8	٠	•	٠٠	+•
16041.10W3	Starting Systems	0.5	٠	•	٠٠	+•
18044.20D1-R2	GM Global Electrical Systems	1.5	٠	•	٠٠	++
18044.20D2-R2	GM Global Electrical Systems	1.5	٠	•	٠٠	+•
18044.20H-R2	GM Global Electrical Systems	16.0	٠	•	٠٠	+•
18044.23V	Data Communication Diagnostics Overview	0.5	٠	•	٠٠	+•
16410.02W1	Diesel Engine Performance 1: Overview and Features	1.0	٠	•	٠٠	+•
16410.02W2	Diesel Engine Performance 2: Induction Systems	2.0	٠	•	٠٠	+•
16410.02W3	Diesel Engine Performance 3: Fuel Systems	2.0	٠	•	٠٠	+•
16410.02W4	Diesel Engine Performance 4: Emissions Systems	0.7	٠	•	٠٠	++
16410.02W5	Diesel Engine Performance 5: Exhaust Aftertreatment Systems	1.0	•	•	٠٠	+•
16410.01D1-R2	Diesel Engine Performance 1	2.0	٠	•	٠٠	+•
16410.01D2-R2	Diesel Engine Performance 2	2.0	•	•	٠.	٠.
16410.01D3-R2	Diesel Engine Performance 3	2.0	•	•	٠.	٠.
16410.01H	Diesel Engine Performance	16.0	•	•	٠.	٠.
17041.59W1	Automatic Transmission: Principles of Operation	1.0	٠	•	٠.	<b>*•</b>
17041.59W2	Automatic Transmission: Mechanical Components	1.0	٠	•	٠.	<b>*</b> •
17041.59W3	Automatic Transmission: Hydraulic Operation	1.0	٠	•	٠.	<b>*•</b>
17041.59W4	Automatic Transmission: Inputs	0.8	٠	•	٠٠	++
17041.59W5	Automatic Transmission: Outputs	0.5	٠	•	٠٠	++
17041.59W6	Automatic Transmission: Powerflow	1.0	٠	•	٠٠	<b>*•</b>
17041.59W7	Automatic Transmission: Diagnosis & Service	1.0	٠	•	٠٠	<b>*•</b>
16410.10W	2.8L Duramax Engine	1.0	٠	•	٠٠	+•
16840.10A	GM MTC Assess. D.E.P.	8.0	٠	•	٠	٠

#### Supplemental Courses (enrichment)

16342.01V	Duramax 6600 (LMM) Diesel Particulate Filter Oper. & Diag.	1.0		*	*
16340.50V	Duramax 6600 Updates & New Features	0.5		•	\$
16440.22D-V	Engines: New & Updates for RPOs LV1 LFY LHN LYX L5P LH7	2.0		*	*

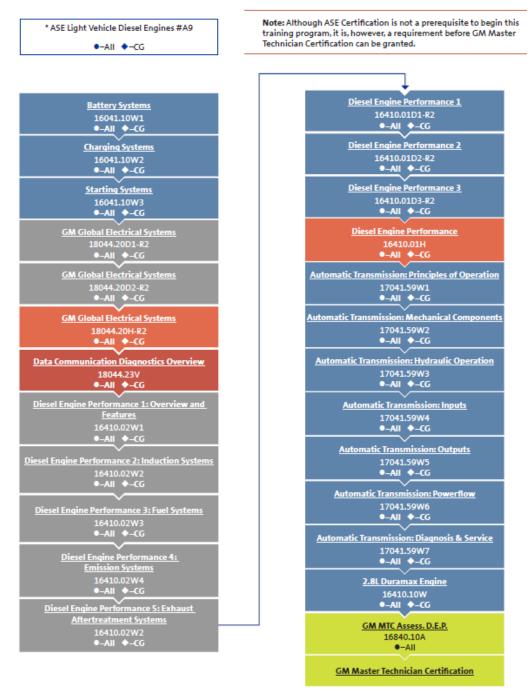
		Cara	nd L/D	Truck	
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders	Α	В	С	D	E
To Meet Dealer Minimum Divisional Service Training Standards	2	2	2	2	2

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Diesel Engine Performance area to the STS for Diesel Engine Performance. This means that the dealer STS Report may show a percentage greater than 100% in Diesel Engine Performance.



#### DIESEL ENGINE PERFORMANCE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

<u>GM</u>



### 11. Manual Drivetrain and Axle

_		
R		
u	11	

#### MANUAL DRIVETRAIN AND AXLE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Courses	Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Manual Drivet	ain & Axle #A3	1.0	+•	٠.	<b>*•</b>	++
18044.20D1-R2	GM Global Electrical Systems	1.5	+•	٠٠	٠٠	+•
18044.20D2-R2	GM Global Electrical Systems	1.5	+•	٠٠	٠٠	+•
18044.20H-R2	GM Global Electrical Systems	16.0	**	٠٠	٠٠	+•
14041.19W1	Propshafts & Rear Axles: Rear Axle Operation	1.0	+•	٠.	٠.	+•
14041.19W2	Propshafts & Rear Axles: Drive Shaft Operation	1.0	+•	٠.	٠.	+•
14041.19W3	Propshafts & Rear Axles: Rear Drive Modules	1.0	٠.	٠٠	٠.	+•
14041.19W4	Propshafts & Rear Axles: Electronic Differentials	0.5	+•	٠٠	٠.	+•
14041.19W5	Propshafts & Rear Axles: Front Drive Axles	1.0	+•	٠.	٠.	+•
14041.19W6	Propshafts & Rear Axles: Diagnosis	1.0	+•	٠.	٠.	+•
14041.18H	Propshafts & Rear Axles Oper, Diag, & Svc	16.0	٠.	٠٠	٠٠	+•
17043.39W1	Manual Transmission: Overview	1.0	+•	٠٠	٠٠	+•
17043.39W2	Manual Transmission: FWD Operation	1.0	٠.	٠٠	٠٠	+•
17043.39W3	Manual Transmission: RWD Operation	1.5	+•	••	٠٠	+•
17043.39W4	Manual Transmission: FWD Diagnosis	1.0	+•	+•	٠٠	+•
17043.39W5	Manual Transmission: RWD Diagnosis	1.0	٠.	+•	٠٠	+•
17043.39W6	Manual Transmission: Clutch Operation & Diagnosis	1.0	**	••	**	••
17043.38H-R2	Manual Transmission Operation, Diagnosis, and Service	16.0	٠.	••	٠٠	••
14043.17W1	Passenger Car AWD Systems: Overview	1.0	٠.	٠.	٠.	+•
14043.17W2	Passenger Car AWD Systems: Diagnosis	1.0	٠.	٠.	٠.	+•
14043.17W3	Passenger Car AWD Systems: Selectable AWD Systems	2.0	++	••	••	••
14043.17D-R2	Passenger Car AWD/FWD Oper, Diag & Svc.	2.0	+•	٠.	<b>*•</b>	+•
14043.25W1	Truck 4WD/AWD Operation and Diagnosis	1.0	+•	٠٠	+•	+•
14043.25W2	Truck 4WD/AWD Operation and Diagnosis	1.5	+•	••	٠٠	+•
14043.26D	Truck 4WD/AWD Operation, Diagnosis, and Service	2.0	+•	••	••	++
14043.25H	Truck 4WD/AWD Operation and Diagnosis	8.0	٠.	٠٠	٠.	+•
13042.14W	Noise, Vibration & Harshness	2.0	٠.	٠.	٠.	٠.
13042.14D1-R2	Noise, Vibration & Harshness	1.5	٠.	٠.	٠.	+•
13042.14D2-R2	Noise, Vibration & Harshness	1.5	٠.	٠.	٠٠	+•
13042.14H-R2	Noise, Vibration & Harshness	8.0	٠.	٠.	٠٠	+•
14840.00A	GM MTC Assess. M.D.A.	8.0	•	•	•	•
Supplemental Cour	ses (enrichment)					
17043.41V	Getrag F-23 Manual Gearbox Unit Repair	1.0			۰.	

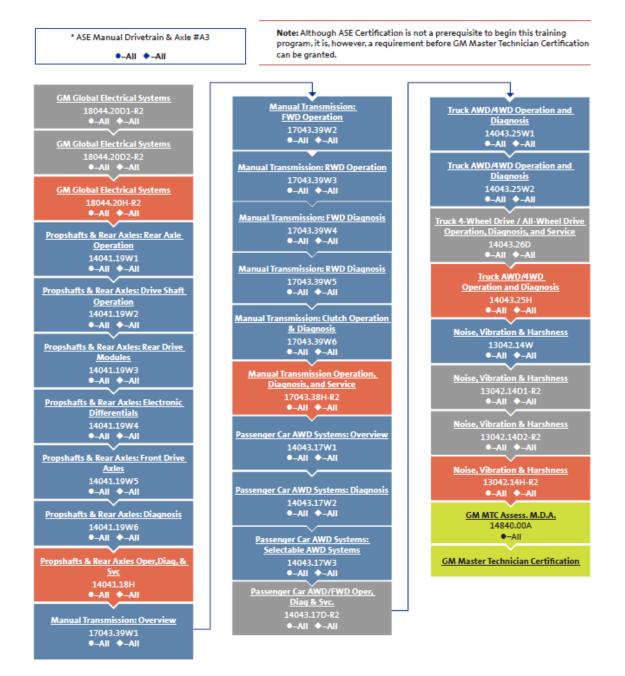
		Car and L/D Truck				]	
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders	1	A	В	С	D	E	
To Meet Dealer Minimum Divisional Service Training Standards		1	1	1	2	2	]

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Manual Drivetrain and Axle area to the STS for Manual Drivetrain and Axle. This means that the dealer STS Report may show a percentage greater than 100% in Manual Drivetrain and Axle.



#### MANUAL DRIVETRAIN AND AXLE

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

GM



### 12. Mechanical/Electrical Body Repair



#### MECHANICAL/ELECTRICAL BODY REPAIR

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Course	s Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GM
ASE Mechanical/El	ectrical #B5 or ASE Certified Master Automotive Tech.	1.0	+•	••	٠٠	+•
18044.20D1-R2	GM Global Electrical Systems	1.5	٠.	••	٠٠	+•
18044.20D2-R2	GM Global Electrical Systems	1.5	٠.	٠٠	٠٠	••
18044.20H-R2	GM Global Electrical Systems	16.0	٠.	••	٠٠	••
22048.60V	Recall #14030 Wire Repair	0.3	٠		•	٠
22048.45W1	GM Safety Systems 1: Restraints	0.5	٠.	٠.	٠.	+•
22048.45W2	GM Safety Systems 2: Supplemental restraints	1.0	٠.	٠.	٠٠	+•
22048.45W3	GM Safety Systems 3: Object Detection	1.0	٠.	٠.	٠٠	+•
22048.45W4	GM Safety Systems 4: Warning Systems	1.0	٠.	٠.	٠.	+•
22048.45W5	GM Safety Systems 5: Active Safety Systems	0.5	٠.	٠.	٠٠	+•
22048.45W6	GM Safety Systems 6: Enhanced Safety Systems	1.0	+•	٠٠	٠٠	••
22048.42H	GM Safety Systems	16.0	+•	٠٠	٠٠	••
22249.54W1	Waterleak and Windnoise Mgmt	2.0	٠.	٠.	٠.	••
22249.54W2	Waterleak and Windnoise Mgmt	2.0	٠.	٠.	٠.	••
22249.54H	Waterleak and Windnoise Mgmt	8.0	٠.	٠.	<b>*•</b>	••
12040.34W1	GM Moveable Roof & Sunroof Systems	1.5	٠٠	٠٠	<b>*•</b>	•
12040.34W2	GM Moveable Roof & Sunroof Systems	0.5	٠.	٠.	٠.	•
12040.34D1	GM Moveable Roof & Sunroof Systems	2.0	+•	٠.	<b>*•</b>	•
12040.34D2	GM Moveable Roof & Sunroof Systems	2.0	+•	٠٠	+•	•
12040.34H-R2	GM Moveable Roof & Sunroof Systems	16.0	+•	••	+•	•
12040.32V	Camaro Top Cover Retrofit Procedure	0.5	•	•	<b>*•</b>	•
15045.19W1	Braking Systems - Base Brakes 1	0.8	+•	••	+•	••
15045.19W2	Braking Systems - Base Brakes 2	0.7	+•	••	<b>*•</b>	••
15045.19W3	Braking Systems - Antilock Systems	1.0	+•	••	٠.	••
15045.19W4	Braking Systems - Enhanced Application	1.0	٠٠	••	٠٠	+•
15045.18D1-R2	GM Braking Systems	2.0	٠٠	٠٠	٠٠	••
15045.18D2	GM Braking Systems	2.0	+•	••	٠٠	+•
15045.19H	GM Braking Systems	8.0	+•	••	٠٠	+•
11044.05W1	HVAC Systems & Operation Stage 1	2.0	٠.	٠٠	٠٠	••
11044.05W2-R2	HVAC Systems & Operation Stage 2	1.2	٠.	٠٠	٠٠	••
11044.05W3	HVAC Systems & Operation Stage 3	1.0	٠.	٠.	<b>*•</b>	••
11044.05D-R2	HVAC Systems & Operation	2.0	٠.	٠.	٠٠	••
22841.00A	GM MTC Assess. M/E B.R.	8.0	٠	•	•	٠
22048.44W	Vehicle Rollover Protection System	0.5	٠			

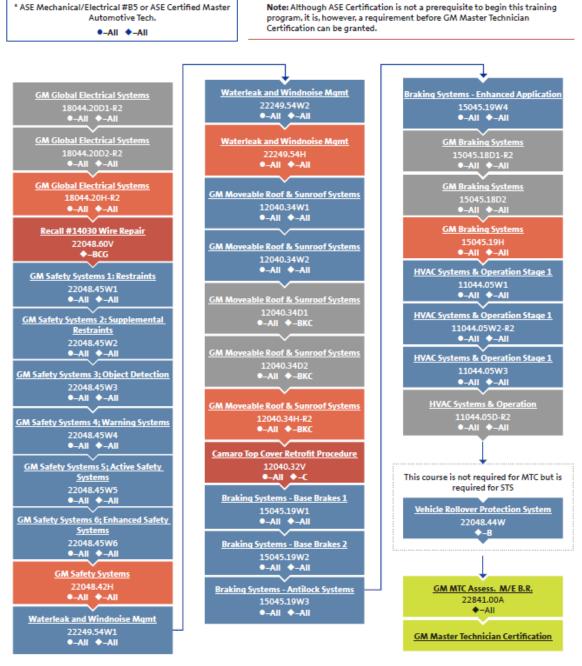
		Cara	nd L/D	Truck		
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders	Α	В	С	D	E	
To Meet Dealer Minimum Divisional Service Training Standards	1	1	2	2	2	

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Mechanical/Electrical Body Repair area to the STS for Mechanical/Electrical Body Repair. This means that the dealer STS Report may show a percentage greater than 100% in Mechanical/Electrical Body Repair.



#### MECHANICAL/ELECTRICAL BODY REPAIR

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

GM



<u>GM</u>

### 13. Advanced Technology Vehicles

#### ADVANCED TECHNOLOGY VEHICLES

GM Master Technician Certification Requirements (MTC = •)

GM Dealer Minimum Divisional Service Training Standards (STS = ♦)

Required Cour	ses Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
ASE Light Duty H	Hybrid/Electric Vehicle Certification #L3	1.0	٠	•	٠	٠
18400.10W-R2	High Voltage Battery Systems Fundamentals	1.0	+•	<b>*•</b>	<b>*•</b>	<b>*•</b>
18400.20W-R2	High Voltage Power Electronics Fundamentals	1.0	+•	<b>*•</b>	<b>*•</b>	<b>*•</b>
18410.15D	Hybrid and Electric Vehicle Diagnostic Strategies	2.0	+•	<b>*•</b>	<b>*•</b>	<b>*•</b>
18420.09D	Electric Vehicle Diagnosis and Service	2.0	٠	•	<b>*•</b>	•
18420.10D-R2	High Voltage Battery Internal Service	2.5	٠	<b>*•</b>	<b>*•</b>	•
18420.17W	High Voltage Depower Tool Usage	0.5	٠	•	<b>*•</b>	٠
18410.00H-R2	Hybrid and Electric Vehicle Diagnosis and Service	16.0	+•	<b>*•</b>	<b>*•</b>	••
18410.05H-R2	High Voltage Battery Unit Repair	8.0	+•	<b>*•</b>	<b>*•</b>	+•
18410.10H-R2	High Voltage Transmission Unit Repair	16.0	٠	٠.	<b>*•</b>	+•
18845.00A	GM MTC Assessment Advanced Technology Vehicle	8.0	٠	•	•	•
18470.00W1	eAssist System Gen 1: Introduction 1 - Buick LaCrosse/Chevrolet Malibu	1.0	*•	•	*•	•
18470.00W2	eAssist System Gen 1: Introduction 2 - Buick LaCrosse/Chevrolet Malibu	1.0	٠.	•	*•	•
18470.01W	eAssist System Gen 1: Safety	0.5	<b>*•</b>	•	٠.	•
18470.02W	High Voltage Battery: Overview - Gen 1 eAssist	1.0	<b>*•</b>	•	٠.	•
18470.10W	eAssist System Gen 2: Introduction - Chevrolet Silverado/GMC Sierra	0.8	•	•	••	••
18470.12W	High Voltage Battery: Overview - Gen 2 eAssist	0.7	٠	•	<b>*•</b>	+•
18470.20W	eAssist System Gen 3: Introduction- Buick LaCrosse/ Chevrolet Malibu	1.0	**	•	•	•
18470.22W	High Voltage Battery: Overview- Gen 3 eAssist	1.0	٠.	•	•	•
18421.00W2	Extended Range Electric Vehicle: Introduction - Gen 1 Cadillac ELR	1.0	•	*•	•	•
18421.00W	Extended Range Electric Vehicle: Introduction - Gen 1 Chevrolet Volt	2.5	•	٠٠	••	•
18421.02W1	High Voltage Battery: Overview 1 - Gen 1 Volt/ELR	1.0	•	٠.	٠.	٠
18421.02W2	High Voltage Battery: Overview 2 - Gen 1 Volt/ELR	1.0	•	٠.	٠.	٠
18421.01W	Extended Range Electric Vehicle: High Voltage Disable Procedure - Gen 1	1.0	•	••	••	•
18421.03W	High Voltage Power Electronics: Overview - Gen 1 Volt/ELR	1.0	•	••	٠•	•
18421.04W	Electric Transmission: 4ET50 Overview - Volt/ELR (EREV)	1.0	•	••	*•	•
18421.05W1	Extended Range Electric Vehicle: Supporting Systems 1 - Gen 1 Volt/ELR	1.0	•	••	٠•	•
18421.05W2	Extended Range Electric Vehicle: Supporting Systems 2 - Gen 1 Volt/ELR	1.0	•	٠•	٠•	•
18421.10W	Extended Range Electric Vehicle: Introduction - Gen 2 Chevrolet Volt	1.0	•	•	**	•
18421.12W	High Voltage Battery: Overview - Gen 2 Volt	0.5	٠	•	<b>*•</b>	•
18421.14W	Electric Transmission: 5ET50 Overview - Gen 2 Volt	1.0	•	•	<b>*•</b>	•
18421.14V	Electric Transmission: 5ET50 Unit Repair - Gen 2 Volt	1.0	•	•	<b>*•</b>	•
18450.00W	Hybrid Electric Vehicle: Introduction - Chevrolet Malibu	1.0	•	•	••	•



#### ADVANCED TECHNOLOGY VEHICLES

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Cou	rrses Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
18450.02W	High Voltage Battery: Overview - Malibu	1.0	٠	•	٠٠	٠
18450.04W	Electric Transmission: 5ET50 Overview - Malibu	1.0	•	•	٠٠	•
18430.00W	Battery Electric Vehicle: Introduction - Chevrolet Spark EV	2.0	•	•	••	•
18430.02W	High Voltage Battery: Gen 1 Overview - Spark EV (BEV)	1.0	•	•	••	•
18430.03W	High Voltage Battery: Gen 2 Overview - Spark EV (BEV)	0.5	•	•	••	•
18430.04W	Electric Transmission: 1ET35 Overview - Spark EV (BEV)	1.0	•	•	••	•
18430.10W	Battery Electric Vehicle: Introduction - Chevrolet Bolt EV (BEV 2)	1.5	•	•	••	•
18430.12W	High Voltage Battery: Overview - Bolt EV (BEV 2)	1.0	•	•	٠.	٠
18430.12V	Bolt EV Battery Section Service Precautions and Safety (BEV 2)	1.0	•	•	••	•
18430.14W	Electric Transmission: 1ET25 Overview - Bolt EV (BEV2)	1.0	•	•	••	•
18430.14V	Electric Transmission: 1ET25 Unit Repair - Bolt EV (BEV2)	1.0	•	•	••	•
18460.00W	Plug-in Hybrid Electric Vehicle: Introduction - Cadillac CT6	1.0		•		
18460.02W	High Voltage Battery: Overview - CT6	1.0		٠		
18460.04W	Electric Transmission: 4EL70 Overview - CT6	1.0		٠		
16240.62W	CNG Fuel Systems	1.5			•	٠
16240.70W	Bi-Fuel Systems Operation	1.0			•	٠
16240.71W	Bi-Fuel System Operation for RPO LFR/FHV	0.5			•	
Supplemental	Courses (enrichment)					
18420.15V	Chevrolet Volt Customer Satisfaction Program 11342	1.0			<u>ې</u>	

101201201	cherrolet voit easterner satisfaction riogram 22512	210				·		
			Γ	Car and L/D Truck				
Min. Number of	Technicians Based on Annual GM Vehicle Repair Orders			Α	В	С	D	E
To Meet Dealer	Minimum Divisional Service Training Standards			1	1	1	1	1

The smaller table on the previous page indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Advanced Technology Vehicles area to the STS for Advanced Technology Vehicles. This means that the dealer STS Report may show a percentage greater than 100% in Advanced Technology Vehicles.

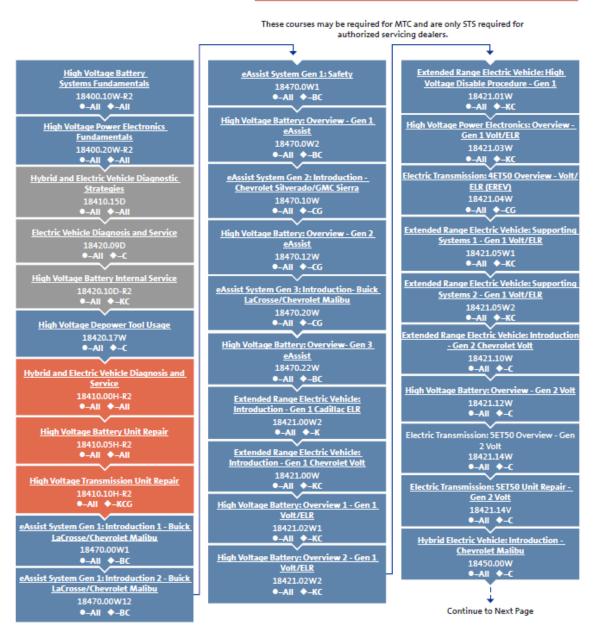
### <u>GM</u>

3

#### ADVANCED TECHNOLOGY VEHICLES

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

* ASE Light Duty Hybrid/Electric Vehicle Certification #L3 •-All Note: Although ASE Certification is not a prerequisite to begin this training program, it is, however, a requirement before GM Master Technician Certification can be granted.

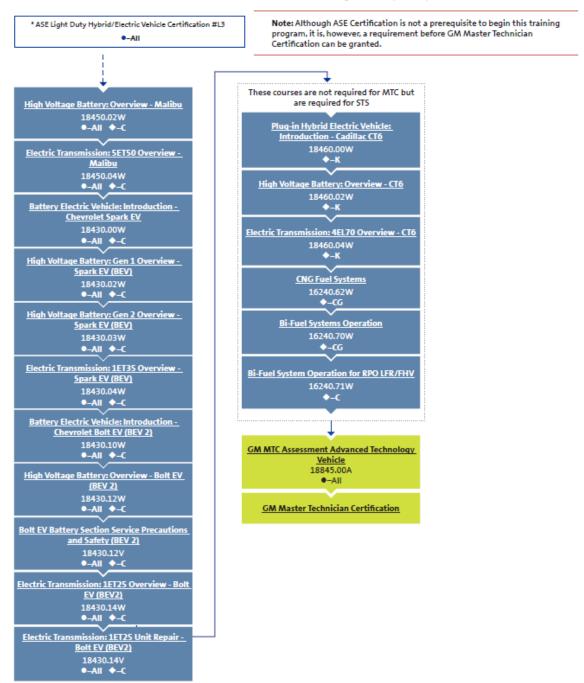


B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions



#### ADVANCED TECHNOLOGY VEHICLES

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

GM



### 14. Body Structural Repair



#### **BODY STRUCTURAL REPAIR**

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

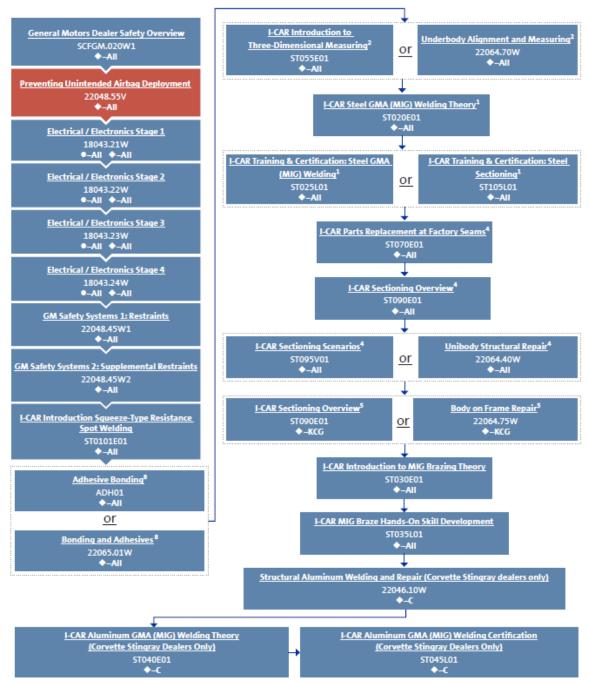
Required Course	es Needed by Division	Training Time (hrs)	Buick	Cadillac	Chevrolet	GMC
SCFGM.020W1	General Motors Dealer Safety Overview	0.3	+	•	•	+
22048.55V	Preventing Unintended Airbag Deployment		•	•	٠	•
18043.21W	Electrical/Electronics Stage 1	1.0	+•	٠.	٠.	+•
18043.22W	Electrical/Electronics Stage 2	1.0	+•	٠.	٠.	+•
18043.23W	Electrical/Electronics Stage 3	1.0	+•	٠.	<b>*•</b>	+•
18043.24W	Electrical/Electronics Stage 4	1.0	+•	٠.	<b>*•</b>	+•
22048.45W1	GM Safety Systems 1: Restraints	0.5	•	•	•	•
22048.45W2	GM Safety Systems 2: Supplemental Restraints	1.0	•	•	•	•
ST0101E01	I-CAR Introduction to Squeeze-Type Resistance Spot Welding	1.0	•	•	•	•
NS090E01	Adhesive Bonding ⁶	0.8	•	•	•	•
	OR					
22065.01W	Bonding and Adhesives ⁶	1.0	٠	•	٠	٠
ST055E01	I-CAR Introduction to Three-Dimensional Measuring ²	1.3	•	•	٠	+
	OR					
22064.70W	Underbody Alignment and Measuring ²	2.0	٠	٠	٠	٠
ST020E01	I-CAR Steel GMA (MIG) Welding Theory ¹	1.0	٠	٠	٠	٠
ST025L01	I-CAR Training & Certification: Steel GMA (MIG) Welding ¹	4.0	•	•	•	٠
	OR					
ST105L01	I-CAR Training & Certification: Steel Sectioning ¹	4.0	٠	•	٠	٠
ST070E01	I-CAR Parts Replacement at Factory Seams ⁴	0.8	٠	•	•	•
ST090E01	I-CAR Sectioning Overview ⁴	1.0	•	٠	•	٠
ST095V01	I-CAR Sectioning Scenarios ⁴	1.5	•	•	•	٠
	OR					
22064.40W	Unibody Structural Repair ⁴	2.0	•	•	•	٠
ST090E01	I-CAR Sectioning Overview 5	1.0		٠	•	٠
	OR					
22064.75W	Body on Frame Repair ⁵	2.0		•	•	٠
ST030E01	I-CAR Introduction to MIG Brazing Theory	1.0	٠	•	•	٠
ST035L01	I-CAR MIG Braze Hands-On Skill Development	4.0	٠	•	•	٠
22046.10W	Structural Aluminum Welding and Repair (Corvette Stingray dealers only)	2.0			•	
ST040E01	I-CAR Aluminum GMA (MIG) Welding Theory (Corvette Stingray Dealers Only)	1.3			•	
ST045L01	I-CAR Aluminum GMA (MIG) Welding Certification (Corvette Stingray Dealers Only)	4.0			•	

	Car and L/D Truck				
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders	A B C D		E		
To Meet Dealer Minimum Divisional Service Training Standards	1	1	1	1	1



#### **BODY STRUCTURAL REPAIR**

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

GM



### 15. Paint and Refinish

GM Master Paint Technician Certification

Note: see page 67 for additional information.

<u>GM</u>	<b>PAINT REFINISH</b> GM Master Technician Certification Requirements (MTC = •) GM Dealer Minimum Divisional Service Training Standards (STS = <b>♦</b> )								
Required Cours	es Needed by Division	Training Time (hrs)	Buick	Cadilla	ac (	Chevrol	et	GMC	
SCFGM.020W	General Motors Dealer Safety Overview	0.3	٠	•	• •			٠	
22041.00H	Certified Paint Refinish	Variable	•	•		•		•	
	I					and L/D	ruck		
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders						С	D	E	
To Meet Dealer Minimum Divisional Service Training Standards						1	1	1	

The smaller table above indicates the number of service technicians the dealership needs to have trained in all the course requirements to meet the STS as shown on the dealer STS Report at www.centerlearning.com. However, dealers should train all service technicians who work in the Paint and Refinish area to the STS for Paint and Refinish. This means that the dealer STS Report may show a percentage greater than 100% in Paint and Refinish.



#### PAINT REFINISH

GM Master Technician Certification Requirements (MTC = •) GM Dealer Minimum Divisional Service Training Standards (STS = ♦)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions



### Medium Duty (Low Cab Forward)



#### MEDIUM DUTY

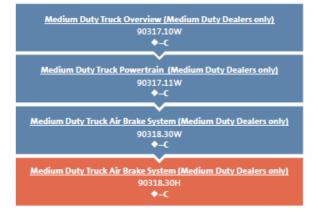
GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)

Required Courses Needed by Division Training Time (hrs) Buick				Cadi	illac	Chevro	olet	бмс
90317.10W	Medium Duty Truck Overview (Medium Duty Dealers only)	1.5		•				
90317.11W	Medium Duty Truck Powertrain (Medium Duty Dealers only)	2.0			•			
90318.30W	Medium Duty Truck Air Brake System (Medium Duty Dealers only)	1.5				•		
90318.30H	Medium Duty Truck Air Brake System (Medium Duty Dealers only)	8.0				•		
					Car a	and L/D	Truck	
Min. Number of Technicians Based on Annual GM Vehicle Repair Orders					В	С	D	E
To Meet Dealer Minimum Divisional Service Training Standards					1	1	1	1



#### MEDIUM DUTY

GM Master Technician Certification Requirements (MTC = ●) GM Dealer Minimum Divisional Service Training Standards (STS = ◆)



B = Buick, K = Cadillac, C = Chevrolet, G = GMC, All = All Divisions

### **Non-STS Curriculum**

3

### Maintenance Inspection Technician (MIT)

To support dealerships that want to develop their own technicians, GM STC offers a learning path for the Maintenance Inspection Technician (MIT).

	-							
🖴 ? 🖂		To view a specific Learning Path, click on the corresponding tab below. To go back to the summary of Learning Paths and Certifications, click on the My Certifications tab.						
	10 go back to the summary of Learning Paths	<u>Printer Fr</u>						
<<	MAINTENANCE INSPECTION TECHNICIAN	SERVICE TECHNICIAN	FUNDA	MENTALS		>>		
	Certification							
	Course	Rating Sta	atus Action	Delivery Method	Tablet Compatible			
	00510.05W Maintenance - Underhood 🕕	****	Launch	WBT				
	00510.10W Maintenance - Behind the Wheel	*****	Launch	WBT				
	00510.15W Maintenance Under Car 🕕	****	Launch	WBT				

The MIT curriculum consists of 27.75 training hours: 19.75 of WBT + 8 hours of Hands-On. There is a Hands-On checklist for the 8 hours of the ILT. Upon successful completion of the MIT curriculum, a technician will be familiar with safety and tools, be able to perform basic maintenance, and be able to conduct a Multi-Point Vehicle Inspection (MPVI).

This job role has no impact on STS.

### **Boot Camps**

Boot Camps are another means for supporting dealerships looking to develop their own technicians. Boot Camp curriculum is designed for the aspiring technician apprentice who may have vocational auto shop experience but has not pursued post-secondary education in automotive technology. Technicians who want to sharpen a specific skill set through instructor-led training will also benefit from Boot Camps.

A Boot Camp is an immersive hands-on training experience that accelerates the learner's progression toward completing GM's performance-based curriculum and maximizes dealership return on training investment.

Boot Camps are not an STS requirement.



### **Training Provided by GM Approved Suppliers**

As appropriate, GM STC incorporates supplier training into its curriculum. These suppliers develop training that meets the high standards GM requires for dealer service technicians. Currently, training in the Body Structural Repair and Paint and Refinish categories is provided by GM-approved suppliers.

#### **Body Structural Repair**

GM STC includes I-CAR training as required for a minimum of one technician per repair facility and optional training within the Body Structural Repair portion of STS to ensure that technicians have the skills and knowledge to fix vehicles right the first time and thereby deliver an exceptional customer experience. Required I-CAR Steel Welding Training Certification courses are:

- Steel GMA (MIG) Welding (WCS03); or
- Steel Sectioning (SPS05)

#### **Aluminum Welding**

In addition to one of the above two steel welding courses, Chevrolet dealers with Corvette Stingray allocation must have a minimum of one Body Structural Repair technician complete the following I-CAR Welding Training & Certification[™] course:

• Welding Training & Certification: Aluminum GMA (MIG) Welding (WCA03)

Visit <u>https://info.i-car.com/network-programs/oem/GM</u> for Body Structural Repair courses offered by I-CAR.

#### New Requirements for 2019 and Beyond

GM service procedures are always evolving, requiring Body Technicians to understand and demonstrate their expertise to fix cars right the first time. With this evolution comes an update in Service Information (SI) and a need for technicians to become adept at two important attachment methods. MIG brazing and squeeze-type resistance spot welding. These requirements are only offered by I-CAR.

- MIG Brazing Theory (BRZ01e)
- MIG Brazing (BRZ02H)
- Squeeze-Type Resistance Spot Welding (WCS04)

These courses are already listed as Requirements the for Body Structural Repair (I-CAR) category in www.centerlearning.com.

#### How do I know if my Welding Certification is current?

I-CAR Welding Training & Certification is valid for five years. I-CAR recommends beginning the registration process to regain the certification at least two months prior to a technician's expiration date. This provides ample time to ensure that the technician's certification does not



#### lapse.

To check your I-CAR certification status, please visit: <u>https://www.i-car.com/Home/MyICAR/</u> Login

If you're a Service or Body Shop Manager, you can always check your team's progress toward Body Structural Repair STS at www.centerlearning.com > Reports and select:

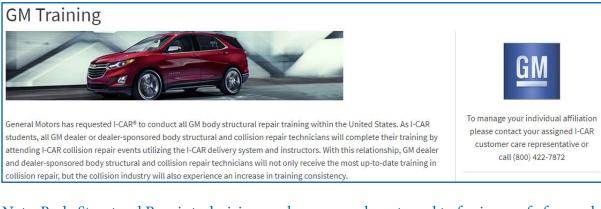
```
(GM) Service Training Standards (STS) Report - 2019 GM STS shows percentage completed weekly by dealership
```

#### Earning GM STC Credit for I-CAR Training Programs

You must have an established Profile page in GlobalConnect with a Primary Email address per below to allow certification status from I-CAR to transfer into GM's training website (www.centerlearning.com).

Name:	100000-01000	USER INFORMA	USER INFORMATION		CONTACT INFORMATION			
GMIN: Dealership			Primary Email:	Name of the Association of the A				
Login ID:	(Westman)	Name:		Secondary				
View Additional Information Edit My Profile		Dealer	Please contact the Dealer Assistance	Email:				
		Administrators:	Center @ 888.337.1010 (dac.na.english@gm.com)	Primary Phone:	CONTRACTOR AND			
		Dealership Business Role	femilie:	Secondary Phone:				
		(S):	(S):	Fax:				
		BAC:	Spanfingers Production	Preferred	2.1000			
		Security Role:	USER	Language:	English			
		Brand:	Chevrolet, Buick, GMC, Cadillac	Time Zone:	(GMT-05:00) Eastern Time (US and			
		Country:	US		Canada) (ET)			

Each week, I-CAR provides GM STC a report of all applicable completed training. GM STC then uploads the credit into body structural repair technicians' training records, which display the credit immediately. Dealers' STS Reports will also display the credit after their regular weekly update. Manage your OEM Affiliation by calling your assigned I-CAR customer care representative or calling the I-CAR Customer Care Desk at (800) 422-7872:



Note: Body Structural Repair technicians and managers do not need to fax in proof of earned I-CAR credit. All applicable Body Structural Repair credit is submitted to GM STC directly from I-CAR.



#### Additional Resources

The I-CAR website (www.i-car.com) provides an array of information about their training programs as well as important details regarding Gold Class points for their recognition programs. In addition, Body Structural Repair technicians and managers may contact the I-CAR Customer Care Desk at (800) 422-7872 or by email at gm@i-car.com.

#### **Paint and Refinish**

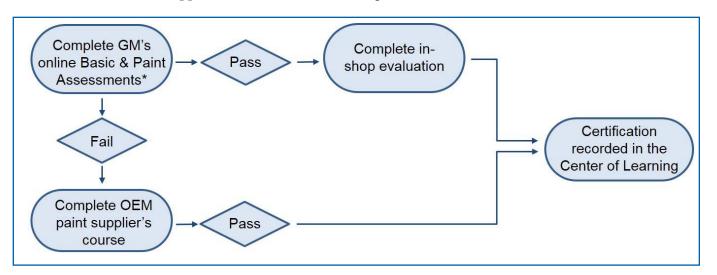
#### The GM Paint and Refinish Training Process

GM and our paint suppliers have developed a strong training relationship since joining forces. Our relationship enables us to implement the strict procedures necessary to consistently restore a vehicle's appearance to pre-accident or showroom condition after a paint repair. Our process ensures that painters are knowledgeable and skilled, and we work together to establish performance testing standards to ensure competency certification. Paint suppliers train the technicians while GM monitors adherence to the curriculum and performance standards.

Our process offer several benefits to learners:

- an expedited method for meeting GM Service Training Standards (STS) and achieving certification
- an easy way to evaluate a painter's knowledge level
- consistency in skills evaluation among peers

The graphic below depicts our Paint and Refinish Training Process. A painter who successfully completes this process will earn credit for GM Certified Paint/Refinish course number 22041.00 on their training record and dealership's STS Report. Please allow up to four weeks for the credit to appear in the Center of Learning.



*Basic Paint Assessment 22042.00A plus the appropriate Product-Specific Paint Assessment 22044. XX.



#### **Pre-Qualify**

A technician must accomplish at least one of the following:

- Paint ASE Certification
- Completion of previous GM or paint supplier training courses
- One year documented automotive paint experience

#### **Online Evaluation**

Once a technician pre-qualifies, he/she must complete the online evaluation by logging on to www.centerlearning.com. Trainees who do not have a log on ID and password may obtain one either by contacting their GM service manager or by calling the GM Center of Learning Help Desk at (888) 748-2687; press 2 then 8. Technicians can locate the online evaluation by clicking Testing > Service Technical > Paint Placement Assessment. The evaluation includes two tests:

- Test 1: Basic Training technicians must pass Test 1 before taking Test 2
- Test 2: OE (Original Equipment) Training this test is paint manufacturer specific
  - Section A: OE Product test (primarily performance based product training)
  - Section B: OE Color test (primarily performance based color tinting/matching)

Trainees are given two attempts to pass the two online evaluation tests.

#### **Evaluation Scored**

Upon completing an online evaluation test at www.centerlearning.com, trainees receive immediate feedback on how they scored. A score of 80% or higher is required to pass Test 1 and sections A and B of Test 2. This information is sent to the paint supplier Central Training Office (CTO).

If a trainee receives a score of 79% or less on any part of the online evaluation (e.g., Test 1 or either section of Test 2), the trainee should contact their paint supplier representative to enroll in the applicable OE Training course(s). For example, if a trainee scores 80% on the Basic Training test and 80% on the OE Product test section and 79% on the OE Color test section, the trainee should enroll in OE Color test.

#### Attend OE Course(s)

Note: This step is required only if a trainee does not pass the online evaluation tests.

Upon completing an online evaluation test, the trainee receives immediate feedback from www.centerlearning.com, including a note on which course(s) they need to enroll in.

See the GM Paint Manufacturer Course and Contact Information section of the catalog (Section 2) for course names based on supplier used.

• Course Contents: Part 1 is primarily performance based product training; Part 2 is primarily performance based color tinting/matching.

For more information pertaining to specific OE courses, call the paint supplier at the number listed in the catalog.



#### **Schedule In-Shop Evaluation**

Note: This step is required only if a trainee passes the online evaluation.

Upon successful completion of both online evaluation tests, the trainee should contact either his/her local paint supplier representative or the paint supplier CTO to schedule an in-shop evaluation.

#### **In-Shop Evaluation**

#### Note: This step is required only if a trainee passes the online evaluation.

A paint supplier representative performs an in-shop evaluation.

Step #1: OE Approved paint systems information review

• The representative familiarizes the technician with the OE approved paint systems, product, and process information. It is appropriate for the representative to coach the technician on information and interpretation. It is not appropriate to supply answers for the Observed Performance Evaluations.

Step #2: Observed Performance Evaluations

- The paint supplier representative fills out all of the requested information on the Observed Performance Evaluation sheets (one set for product application and another set for color tinting).
- The representative observes as the technician demonstrates his/her ability to perform all of the evaluation criteria listed.
- To pass the course, a technician must achieve a perfect performance score of 100% on both the product application and color tinting evaluations.

Note: If a technician fails the in-shop evaluation, the recommended action is to complete the OE course.

#### **Results Sent to Training Administrator**

The paint supplier representative sends the completed Observed Performance Evaluation sheets to their training administrator.

#### **Results Sent to Center of Learning**

The paint supplier CTO compiles a list of certified painters and forwards it to GM STC.

#### GM STC Posts Records to Center of Learning Website

GM STC imports the list of certified painters into www.centerlearning.com. Credit shows in training records immediately and on the STS Report within one week.

#### **OE** Certification Timing

Trainees must complete the Paint and Refinish training process within a six-month period once they begin.



#### **GM Paint Manufacturer Course and Contact Information**

The following table shows the GM paint suppliers and their contact information. To determine the training requirements for certification, GM body service technicians can discuss them with their paint supplier representative or contact the appropriate GM-approved paint supplier at the number(s) listed below:

PAINT SUPPLIERS	PHONE NUMBER	WEBSITE
Axalta/Spies Hecker/Standox/Cromax	(610) 358-5354	www.axaltacoatingsystems.com
AkzoNobel/Sikkens	(800) 656-2332	www.akzonobel.com
BASF	(800) 201-1605	www.BASFrefinish.com
PPG/Nexa	(800) 647-6050	www.ppgrefinish.com
Sherwin-Williams/Martin-Senour	(630) 887-7516	www.sherwin-automotive.com
Valspar/DeBeer	(972) 595-8910	www.valsparautomotive.com

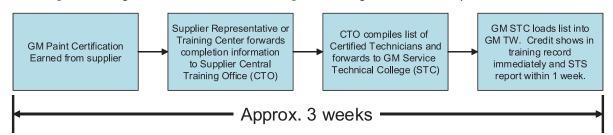
#### **Frequently Asked Questions**

- Q: Why didn't you crosswalk our STG paint courses into the STC STS Reports? Most of us were at a 100% Minimum Training Standards under the old curriculum. What is your proposed fix?
- A: If you follow the GM Paint and Refinish Certification Process documented on page 63, you may find that your past training **does** apply toward meeting the current GM STC Paint and Refinish training requirements. To see what training is needed to achieve 100% STS (if any), first verify your trainee(s) meets the pre-qualification requirements. Then have your trainee log on to www.centerlearning.com and take the online evaluation test (Testing > Service Technical > Paint Placement Assessment). If the trainee passes the online evaluation and in-shop evaluation, GM Paint and Refinish Certification credit will be issued (course 22041.00) which would achieve 100% of the GM minimum STS requirement. If the trainee does not pass the online evaluation (regardless of past training records), the trainee will be notified as to which OE training is required for the trainee to achieve credit for 22041.00.

The GM Paint and Refinish Certification Process is performance-based and requires each trainee to demonstrate that he/she possesses key knowledge and can perform key tasks correctly. For this reason, cross credit was **not** automatically applied for past GM or paint supplier training. Instead, the paint manufacturer applies credit for those who demonstrate they have adequate knowledge and proper skills. When trainees are certified, it means they have the proper knowledge and skills to perform the procedures correctly. Consequently, cross credit is not being given for past training that did not ensure each individual's performance.



- Q: Can I fax in a copy of my past paint training to satisfy the requirement for GM Paint Certification (22041.00)?
- A: No. By following the process described above, trainees will receive credit for this course from the paint manufacturer. At the time this credit is earned, the data showing GM Certification completion are entered into the paint manufacturer database and subsequently transferred to GM STC for automatic loading into www.centerlearning.com. If your credit is not showing in the LMS within 3 weeks, please contact the paint supplier. See table under GM Paint Manufacturer Course and Contact Information in this section of the catalog for supplier contact numbers. If the paint supplier has forwarded your record to GM STC, select "Help/Support" from the home page, then select "Contact Us" and provide the following information: date earned, how ("test out" through the online evaluation or completion of two-part paint supplier course), where (dealership/body shop where evaluation was performed or training center location attended), and from which paint manufacturer.
- Q: Once I have earned my GM Paint Certification through either passing the online evaluation and the in-shop evaluation or the two OE courses, what is the process for getting this credit into www.centerlearning.com?



A: The process diagram below illustrates the steps taken to get credit in the system:

### Q: What steps can I take to make sure my certified painter's credit actually appears in www.centerlearning.com?

 A: 1. a) If the trainee works directly for your dealership, make sure he/she is in www.centeroflearning.com. If not, use the "Add New Trainee" function under "Profiles". If the trainee's profile is not in the system at the time his/her certification record is passed, a profile is created and placed in "inactive" status.

b) If the trainee works for a sublet shop, ask your nearest regional GM Training Center to create the (non-GM) sublet shop in the system (or verify one already exists) and create a new profile for the trainee under that sublet shop, and finally, using the "Sublet Process" feature, sublet this trainee to your dealership.

2. Make sure your trainee logs their correct GM Identification Number (GMIN) number with the paint supplier. This is very important since certification records from the paint suppliers are matched to profiles in www.centerlearning.com using GMINs.





#### GM STC Portal Site (www.gmstc.com)

The GM STC portal site provides an overview of the GM STC program. Here, users can find information on the curriculum, training locations, and other details that impact service technical training. This site also provides information about other related programs, as well as the latest news and information regarding GM STC. Please visit this publicly accessible site at www.gmstc.com for more information.



### First Responder Guides, Rescue Sheets, and Quick Reference Sheets

As an auto industry technology leader, the GM vehicles being developed and driven on our roads necessitate information sharing with the first responder community: firefighters, police officers, and Emergency Medical Technicians (EMTs). Technology affects vehicle components such as supplemental restraints and the materials used to build vehicles.

While some systems and components are common to traditional GM vehicles, there are now Advanced Technology Vehicles systems and components that differ and may affect how a rescue procedure is performed.

GM STC develops First Responder Guides (FRG), Rescue Sheets (RS), and Quick Reference Sheets (QRS) for the new technology vehicles and posts them to www.gmstc.com.

An FRG offers information on vehicle systems and components; both RS and QRS provide the "on-scene" information that first responders need. All of these items feature high quality graphics to support the information.

The FRG provides an overview on how the advance technology vehicle operates and how to identify the vehicle from conventional vehicles, in addition to identifying key hybrid components and how to safely disable the high voltage system. The "No Cut Zones" are provided to ensure the occupant and First Responder are safe during extrication procedures. RS and QRS provide vehicle identification, hybrid components and how to disable the electrical/fuel cell systems.

GM STC provides FRG, RS, and QRS free of charge to First Responders. All can be displayed as long as they are represented as GM information and are not modified in any way.

#### Note: Guides can be downloaded from

www.gmstc.com > FirstResponder.aspx in PDF format onto desktops and mobile devices or printed and saved in



vehicles. They can also be accessed using a QR code reader on a smart device (see photo).



#### Center of Learning Website (www.centerlearning.com)

The Center of Learning website was implemented to respond to the GM Dealer Council's requests that dealers have greater ownership of dealership employee training. This website enables dealers to track and organize their dealership employee training and to stay current on their training requirements and needs. It enables users to access a variety of training information at their convenience, providing details on items such as course descriptions, schedules, enrollments, training histories, resource management, and reporting.

The Center of Learning website is now accessible via GM GlobalConnect (www.gmglobalconnect.com) using Single Sign-On (SSO) technology. Once logged into GlobalConnect, simply click on the Center of Learning link to reach the home page. Be sure to use your own GM GlobalConnect ID to ensure you receive credit for any web classes completed.

GM				
Welcome to General M	Notors			
Please enter your User Name and Pa	ssword and click the LOG IN button to o	continue to GlobalConnect		
User Name: Password:	7			
Forgot Password?				
		re. You must know your security questions eir Dealership Administrator for all passwor		
Please contact your local <u>Help Desk</u> f	for all other GlobalConnect support			
Terms of Use	(	© General Motors LLC. All Rights Reserved.		
🞯 GlobalConnect		Search	🖛 🚳 eme 🐯	
App Center	🛔 Departments 🗸	Center of Learning	🖨 Showroom	

The website displays your specific training records and requirements. Please contact your dealership's Partner Security Coordinator if you have questions about your access levels within GlobalConnect.

To ensure a pleasant experience when using the Center of Learning website, be sure to check out the available job aids under Help link located at the top right of the page.

#### The Importance of E-mail

There are many Center of Learning website features that rely on technicians and service managers having accurate e-mail addresses in GM GlobalConnect. Accordingly technicians and service managers must fill out the My Profile page complete with a Primary Email (and/ or Secondary Email) to receive important notifications from www.centerlearning.com.

Name:	1000011101000	USER INFORMATION C		CONTACT INFORMATION		
GMIN:	INCOMPANY AND	Dealership		Primary Email:	Anna in the Real of Anna 1997	
Login ID:	(Westman)	Name:		Secondary		
View Additional Information Edit My Profile		Dealer Please contact the Dealer Assistance Center @ 888.337.1010(5)		Email:		
		Administrators:	(dac.na.english@gm.com)	Primary Phone:	COMPAREMENT OF THE OWNER OWNER OF THE OWNER OWNE	
		Business Role	Secondary Phone:			
				Fax:		
		BAC:	Practice and Practice	Preferred	English	
		Security Role:	Role: USER		cirgiisii	
		Brand:	Chevrolet,Buick,GMC,Cadillac	Time Zone:	(GMT-05:00) Eastern Time (US and Canada) (ET)	
		Country:	US		The Constant of Marine Constant	

#### **Center of Learning Functionality and Features**

The Center of Learning website is updated periodically based on feedback from the dealer council, GM management, and other stakeholders. Functionality and features are designed to make managing training needs even easier.

#### Courses are grouped by Bronze, Silver, and Gold certification areas

The GM STS Report divides courses and technician certification into three levels: Bronze, Silver and Gold.

- Bronze Certification is achieved when a technician reaches 100% in the Fundamentals category.
- Silver Certification is achieved when a technician is Bronze Certified and has completed all in-dealer training (for example, Web Based Training, Video On Demand, online instructor-led) in any given STS area, such as Engine Repair.
- Gold Certification is achieved when a technician is Silver and ASE-certified and has completed all hands-on training in any given STS area.

The following STS areas have Silver and Gold Certification levels:

- Emerging Issues
- Engine Performance
- Diesel Engine Performance
- Engine Repair
- Electrical/Electronics
- Manual Drivetrain & Axle
- Automatic Transmission/Transaxle
- Brakes
- Steering & Suspension
- HVAC
- Mechanical/Electrical Body Repair
- Medium Duty

#### Learning paths to support Bronze, Silver, and Gold certification areas

Upon logging in, service technicians' learning paths displays the Bronze, Silver, and Gold certification status. Courses on the STS learning paths are divided into Bronze, Silver, and Gold certification areas. Learning paths that don't have a Bronze, Silver, or Gold certification level – such as Body Structural Repair – will remain unchanged and will continue to list all courses in a single STS group.

Bronze, Silver, and Gold certificates are available for technicians to download and print from the LMS.

#### View Course and Scheduled Sessions Pages

The following course information is viewable on the View Course Page:

- Course description
- Language(s)
- Prerequisites
- Equivalencies
- Expiration Period
- Education Unit

(Land)		1.2	Catalog > View Course							
iiii	É	2								
8	?	$\times$	The course description below outlines Description, required Prerequisites, etc	he specifics of this course such as the Course Number, Name, <u>View Scheduled Sessions</u>						
-	_			Add Course to Learning Path (Self						
			Depending on the delivery platform, yo of these instructions	a can either launch or enroll in a course from one of the links to the right <u>Select</u> )						
		Back	k to Learning Path							
		Back	k to Course Search	Average Rating 4.8 by 207 users						
		Cou	rse ID	17102						
		Cou	rse Number	16048.33H						
	Delivery Platform		very Platform	Hands-On Training						
	Course Browser Mode			Compatibility View						
		Mob	ile Submenu	(Not Set)						
		Cou	rse Name	GDS2 / MDI 1 & 2						
				This course is designed to provide the technician with the skills necessary to properly diagnose current and future vehicle platforms using Global Diagnostic System 2 (GDS 2) and the Multiple Diagnostic Interface (MDI) 1 & 2. Basic hardware requirements and networking concepts are addressed to aid technicians with setup, updates, installation, and use of the system and its components. During workstations, the participants will interact with the software to familiarize themselves with the components and proper operation of the diagnostic tools. Upon completion of this course, participants will be able to: <ul> <li>Identify the components of the MDI (1 &amp; 2</li> <li>Install and update software</li> </ul>						
				- install and update soltware						
				Connect the components using a wired or wireless interface						
				<ul> <li>Use GDS 2 and MDI (1 &amp; 2) to diagnose a vehicle system concern</li> </ul>						

The following course information is viewable on the Scheduled Sessions Page:

- Delivery method and class duration
- Start and End Dates

	To search for currently scheduled courses select search terms from the drondown menus enter text in the text									
	COURSE NUMBER       IS       16048.33H       SUBMIT         Start Date:       is greater than       AUGUST       /       8       /       2019          End Date:       is less than       OCTOBER       /       8       /       2019          Record(s) 1 to 10 of 10									
Course Number	Course Name	Start Date	End Date	Start Time	End Time	Seats Avail	Location	Action	Enroll	Delivery Type
16048.33H	GDS2 / MDI 1 & 2	08/08/2019	08/08/2019	08:00	17:00	1	New York City GM Training Center, Room 6	[Edit] [Cancel] [View Roster] [View Details]		н
16048.33H	GDS2 / MDI 1 & 2	08/28/2019	08/28/2019	08:00	17:00	0	Buffalo GM Training Center, Room #1	[ <u>Edit]</u> [ <u>Cancel]</u> [View Roster] [View Details]	[Participant] [Self]	н



#### Text message registration notifications and reminders

Participants have the ability to enable course registrations and enrollment reminders to be sent to their mobile phones via a text message. This function can be enabled from the participant's profile page in the LMS.

#### Path to 100% STS Button

The Path to 100% STS button to the Dealer and Technician Learning Paths on the LMS home page improves the ease of navigating within the LMS and provides convenient access for enrolling and measuring progress toward achieving 100% STS.

#### Spanish Language Option

Many courses have already been translated and are available in Spanish. Courses that are already translated will appear in Spanish, courses that are not yet translated will appear in English. The Browse Catalog feature will be updated as newly translated courses become available.

#### New Course Announcements

You can receive an email notification when new courses are released. You will only receive notifications for courses that are relevant to you, based on the selected Person Type in your profile. To receive New Course email notifications, set "Send New Course Announcements" to Yes on your Profile Page.

Setting "Send Training Email Announcement(s)" and/or "Send New Course Announcements" to Yes will authorize the system to send special Training and New Course Announcements are based on your selected Person Types. If you selected No and have provided an email address in your profile, you will continue to receive Session Enrollment and Cancellation emails.					
Send Training Email Announcement(s)	● Yes ◯ No				
Send New Course Announcements	● Yes ○ No				

#### **Blended Learning**

Through its blended media approach (e.g., VCT, VOD, WBT, and hands-on) along with highly qualified instructional design, GM STC helps to extend the service technician's knowledge. The program also reduces the time that service technicians spend away from dealerships.

#### Virtual Classroom Training (VCT)

VCT courses bring classroom training directly to your computer. This delivery method improves instructor and participant interaction through with a rich media interface and provides an enhanced learning experience for the technician.

Technicians select their desired course and hit Enroll.

18044.20D1-R2 GM Global Electrical Systems Session 1	****	<u>Enroll</u> <u>Test Out</u>	VCT
18044.20D2-R2 GM Global Electrical Systems Session 2		<u>Enroll</u> <u>Test Out</u>	VCT

Technicians can see a schedule of their course enrollments by viewing "My Enrollments" or "My VCT" on the home page.

	Schedule	Catalog	Reports	GC Show	-	dia Tube	<b>?</b> Help/Support	Message Center
MY LEARNING STATUS GM CERTIFICATION Status as of: August	MY ENROLL 8, 2019	MENTS	МҮ ҮСТ				Wel	come to Center of Learning
Instructor				Overall Completion	Professionally CERTIFIED No	Product CERTIFIED	We	It's great to have you back. Check out this enhanced resource and its many helpful features. have available training materials that Il help you navigate the updated site.
			Certification	Cert Courses	Completed 🕖	Mark of Excellence		Click Help for more information.

Note: To find the Participant Guides (PG) for VCT you are enrolled in to go to the View Course page by selecting the courses name. Find the PG on this page and download it before the start of your course per below.

Description, required Prerequisi	utlines the specifics of this course such as the Course Number, Name,	View Scheduled Sessions Test Out Add Course to Learning Path (Se					
Back to Learning Path							
Back to Course Search	Average Rating 4.1 by 1032 users						
Course ID	16029						
Course Number	18044.20D1-R2	18044.20D1-R2					
Delivery Platform	Virtual Classroom Training (VCT)	Virtual Classroom Training (VCT) Compatibility View					
Course Browser Mode	Compatibility View						
Mobile Submenu	(Not Set)						
Course Name	GM Global Electrical Systems Session 1 This three component course is designed to introduce technicians to Gene format including the circuit types and functions. Session 1 of this two-sess provides information that will assist service technicians in understanding O test and diagnose them. This session focuses on the five circuit types and logical order for testing circuits; how to test and diagnose ground circuits; voltage circuits. Upon completing this course, participants will be able to: • Identify the 5 electrical circuit types and their 9 functions and logical • Distinguish how to test and diagnose ground and voltage circuits • Describe how to test and diagnose signal and control circuits	ion VCT course component M's circuit functions and how to their nine functions and the and how to test and diagnose					
	GM GES R2.01 Participant Guide						



#### Video On Demand

Many prerecorded STC courses are available through Video On Demand (VOD). Emerging Issues courses are released directly to VOD on the second Thursday of each month. Through the combined use of text, 2D and 3D animation, photos and video, technicians are able to review these training modules on-demand any time day or night, reducing time away from the service bay. VOD post tests are available directly from the VOD page upon completion of the course.

<u>16048.30W-R3</u> Global Diagnostic System (GDS) 2	****	Launch	WBT
<u>16048.40W</u> <u>Tech2Win Diagnostic Tool</u>	****	Launch	WBT
22048.55V Preventing Unintended Airbag Deployment	****	<u>Launch</u> <u>Test</u> <u>Out</u>	VOD
18043.21W Electrical/Electronics Stage 1	****	<u>Launch</u> <u>Test</u> <u>Out</u>	WBT

#### Web Based Training (WBT)

WBT is knowledge-based training delivered over the Internet. Service technicians can access WBT at their convenience. To launch a WBT course component, technicians identify the course using the Catalog Search, Learning Path, or Path to 100% STS link and select Launch.



#### Reports

Various reports are accessible through the Center of Learning website. These reports help dealership managers determine their employees' training needs and accomplishments.

- Dealer Certification Progress Report: shows the breakdown of certification course completion by dealership, job title, and employee
- Service Training Standards (STS) Report: GM STS shows percentage completion weekly by dealership
- (GM MD) Service Training Standards (STS) Report: GM Medium Duty Truck (GM MD) STS shows percentage complete weekly by dealership
- Course Completion Report: course completion summary and detail information
- Dealer Enrollment Summary (User & Course)
- Dealer Training Summary
- World Class Tech Summary By Region

#### Master Technician Certification (MTC) Recommendations

The Center of Learning website recommends the next two full courses a service technician needs to complete to achieve MTC in a selected work area. A full course consists of all course components (WBT, online instructor-led, hands-on). The system provides the additional recommendations to allow for long-term planning of training. For example, a service technician can complete the online instructor-led components of the next two courses and then enroll for the hands-on course component as soon as prerequisites are satisfied.

Note: The system recommends MTC courses only for service technicians who have selected a Learning Path.

#### Service Training Standards (STS)

To start, the dealer service manager registers the dealer technicians into specific Learning Paths with the Center of Learning. These Learning paths have percentages that correspond to STS requirements and display their percentage of completion on the homepage. Once a technician is registered to a Learning Path, the Center of Learning website recommends the next two full courses a service technician needs to complete to achieve the dealership's divisionrequired training in each work area. A full course consists of all components of a course (WBT, online instructor-led, hands-on). The system provides the additional recommendations to allow for long-term planning of training. For example, a service technician can complete the online instructor-led components of the next two courses, and then enroll for the handson component as soon as prerequisites are satisfied. To meet STS, the system recommends the "best case" service technician, the one closest to fulfilling the training requirements in each work area. As soon as the dealership is 100% in a given work area, the system does not recommend additional training for that area, even though others may need additional training.

Note: The system recommends training only for employees who have specified a Learning Path.



#### **GM Training Tips**

#### Learning Path

The Learning Path is an online feature developed to help dealership managers and employees plan their training. The Learning Path outlines training plans, recommends courses, and summarizes training activity to promote achieving dealership training standards and obtaining individual certifications.

Service managers have the ability to quickly and easily build the Learning Paths for all of the service technicians at the dealership by selecting the following path: Profile > Profile Manager. When service managers click on this link, they get a list of all technicians at their dealer. From their they can select View Learning Path > Add/Remove Learning Path to get to the page where they can add/remove learning paths for the Service Technical Certification Areas.

GM STS Learning Paths	
Learning Path Name	Add/Remove
Fundamentals	
Fundamentals - Tech Apprentice (Display Only)	
Emerging Issues	
Engine Performance	
Diesel Engine Performance	
Engine Repair	
Electrical/Electronics	
Manual Drivetrain & Axle	
Automatic Transaxle/Transmission	
Brakes	
Steering & Suspension	
HVAC	
Mech/Elec/Body Repair	
Advanced Technology Vehicles	
Medium Duty	
Bi-Fuels	
Body Structural Repair (I-CAR)	
Paint	

#### ILT Waitlist & Unscheduled ILT Course Request a Class Capability

If you want to enroll in a hand-on class that is currently full, you can enroll on the waitlist for that specific class. If the opportunity arises that a seat is opened at your preferred training center, you will be enrolled in the open seat, as long as you are next on the waitlist. If there are openings for a class you want to take, but none of the times or locations work for you, you can utilize the Request Unscheduled Course function. By selecting the Request Unscheduled Course link, you can specify what course and where you want the potential offering to take place. These submissions are taken into account when the class organizers get ready to schedule a new offering.

Note: Certain ILT courses are only offered at the Regional Training Centers. Please check your learning path for any restrictions before requesting an unscheduled course.

#### **Online Testing**

The Center of Learning website provides users with the ability to take a variety of online tests. These service technical and Sales, Service, and Parts tests include online instructor-led seminar tests and Placement Assessment tests, which allow users to test out of classes. Upon completing the test, users receive immediate feedback on their score. The system immediately updates their training record.

#### Virtual Classroom Training (VCT) Participant Guides

VCT Participant Guides can be downloaded from the Center of Learning website from the View Course page. To download a guide, access the site and find the course, either through your Learning Paths or through the Catalog and select its name. This will bring you to the View Course page where you can download the Participant Guide

#### Training Expiration E-mail Notification

Before the expiration of a training event (ASE certifications, Certification Events), the Center of Learning website automatically sends an e-mail notification to the employee (provided an e-mail address has been entered into the system). This allows employees to ensure they stay compliant with any and all training requirements.

#### Search Functionality

The Center of Learning website offers a search functionality. The search engine uses course long names, short names, abstract, notes, and keyboards to try and find a match.



### **GM** Center of Learning Resources

Center of Learning provides a common entry point to the GM STC program on the Internet at www.gmstc.com. Here individuals can find information on the program including:

- GM STC Overview
- GM Automotive Service Educational Program (GM ASEP)
- Curriculum (Certification Areas, paint training information, course descriptions, training methods, GM Service Know-How, curriculum tools, and much more)
- Frequently Asked Questions (FAQs)
- Training location information
- Fleet training information

The "Contact Us" area of the site allows individuals to share their comments, ask questions, and provide general feedback.

#### Help/Support

Center of Learning supplies a Live Chat feature to support dealerships and service technicians for technical training. The Help Desk can be reached by selecting the Help/Support box on the home page and then selecting the Chat option. The Help Desk supports the following areas:

- Center of Learning password support
- Online instructor-led equipment and sign-on support
- Curriculum information
- Training billing information
- Training material support

The Help Desk is available Monday through Friday, 8 a.m. - 8 p.m. Eastern time (excluding holidays).

For GM GlobalConnect support, call the U.S. GM GlobalConnect Help Desk at (888) 337-1010.

### **GM STC Training Locations**

#### **GM Regional Map**

Below is a picture of the GM STC Training Centers and satellite locations by region. For the most current information, go to www.gmstc.com.



#### **GM Training Center Address and Phone Numbers**

The following is a list of addresses, phone numbers, and corresponding maps for the GM Regional Training Centers. The address and maps for the satellite training centers are arranged by region to help you determine which training center is most convenient to your location. Contact the Regional Training Center for detailed driving instructions and maps.

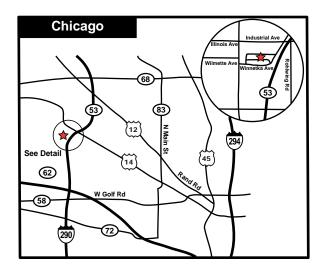


#### **North Central Region**



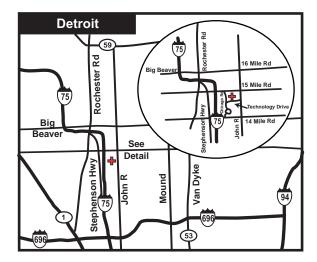
#### General Motors Company CHICAGO Training Center

4110 Winnetka Avenue Rolling Meadows, IL 60008 (630) 295-6394



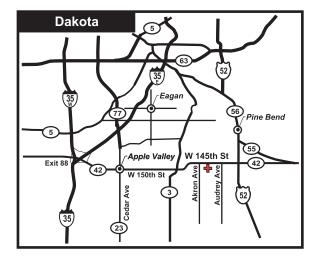
#### General Motors Company DETROIT Training Center

1919 Technology Drive Troy, MI 48083 (248) 837-6920



#### 🔶 Dakota County Technical College

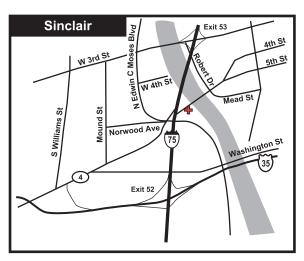
1300 E. 145th Street Rosemount, MN 55068-2999



#### Sinclair Community College

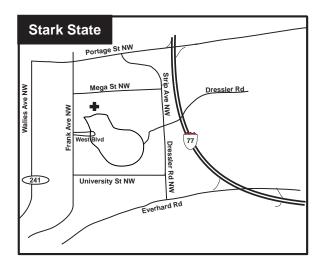
5

220 Edwin C. Moses Boulevard, Building20Dayton, OH 45402



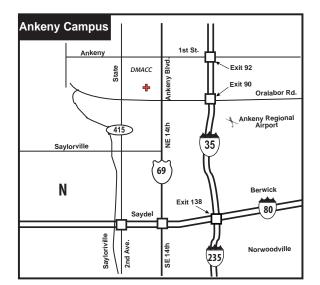
### Stark State College

5600 Whipple Avenue NW North Canton, OH 44720



#### ♦ Des Moines Area Community College

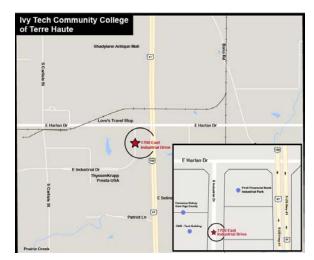
2006 South Ankeny Blvd. Ankeny, IA 50023





#### ♦ Ivy Tech Community College

1700 E. Industrial Drive Terre Haute, IN 47802



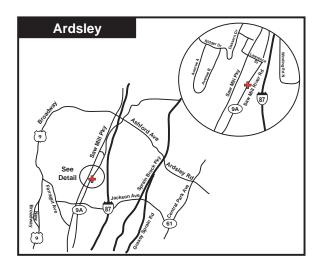


5

#### **Northeast Region**

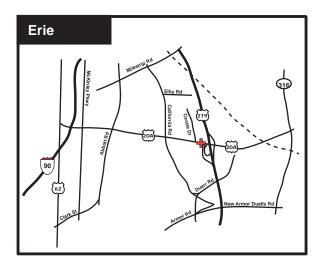
#### General Motors Company New York Training Center

425 Saw Mill River Road, Ste. 100 Ardsley, NY 10502 (914) 631-4950



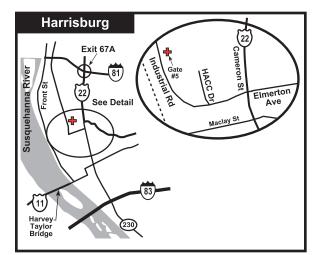
#### Erie Community College

5885 Big Tree Road Orchard Park, NY 14127



#### Harrisburg Community College

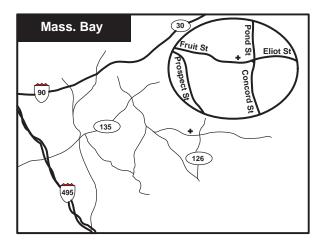
One HACC Drive North Hall #119 Harrisburg, PA 17110





#### Massachusetts Bay Community College

250 Eliot Street Western Campus Ashland, MA 01721



#### Community College of Baltimore County (CCBC) Catonsville

800 S. Rolling Rd. Baltimore, MD 21228

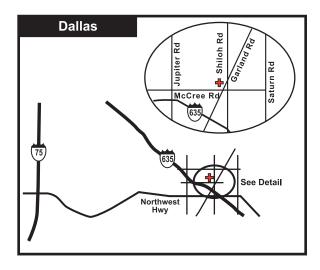


#### **South Central Region**



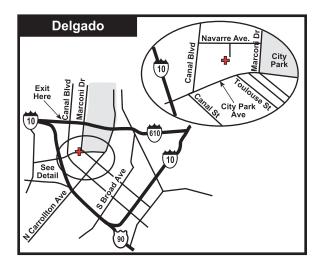
General Motors Company DALLAS Training Center

3635 Shiloh Road Garland, TX 75041 (972) 278-2196



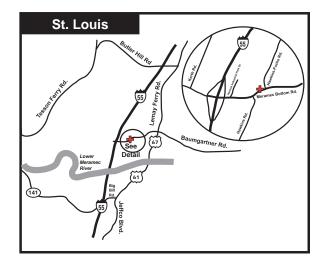
#### Oelgado Community College

615 City Park Avenue, Building 41 New Orleans, LA 70119-4399



#### General Motors Service Technical College – St. Louis

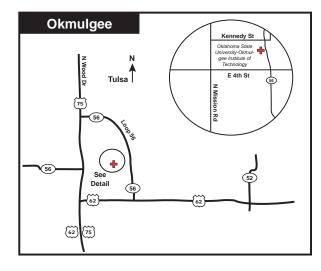
4407 Meramec Bottom Road, Unit E St. Louis, MO 63129-2561





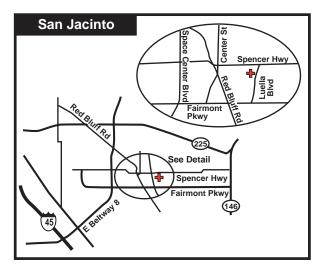
### Oklahoma State University - Okmulgee

1804 East 4th Street Okmulgee, OK 74447



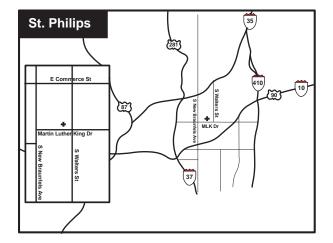
#### ♦ San Jacinto Community College

3501 Luella Building 26, Room 118 LaPorte, TX 77571



#### ♦ St. Philip's College

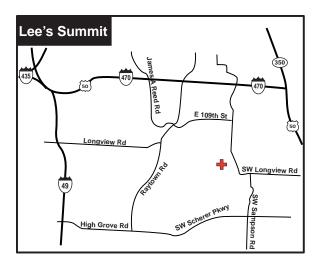
1801 Martin Luther King Drive San Antonio, TX 78203



#### Metropolitan Community College -Longview

500 Southwest Longview Road Lee's Summit, MO 64081

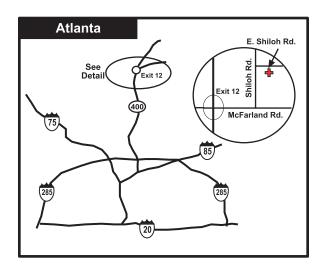
5



#### **Southeast Region**

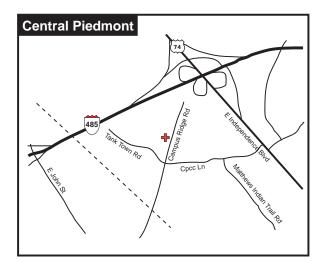
General Motors Company ATLANTA Training Center

6395 Shiloh Road Alpharetta, GA 30005 (770) 888-1300



#### Central Piedmont Community College

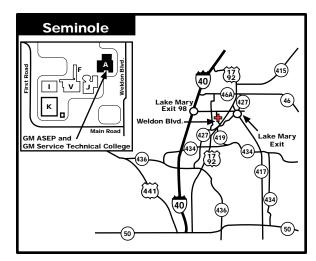
2800 Campus Ridge Rd. Matthews, NC 28105





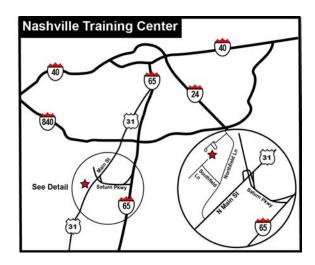
#### ♦ Seminole Community College

100 Weldon Boulevard Building I, Room 100J Sanford, FL 32773



#### Northfield Workforce Development & Conference Center

500 Northfield Lane Spring Hill, TN 37174

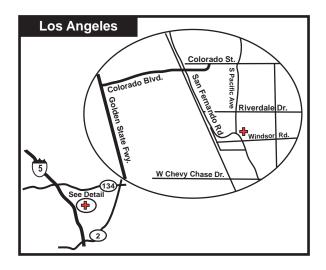


#### Western Region



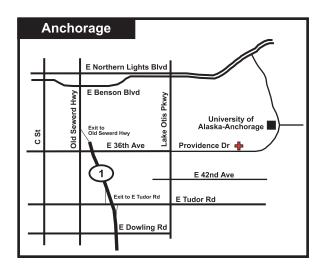
#### General Motors Company LOS ANGELES Training Center

4648 San Fernando Road Glendale, CA 91204 (818) 241-1659



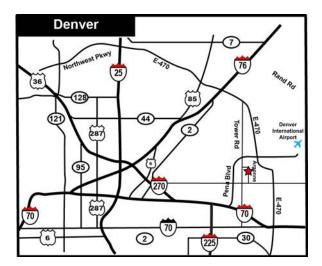
#### University of Alaska at Anchorage

3211 Providence Dr. Anchorage, AK 99508-8354



#### General Motors Service Technical College – Denver

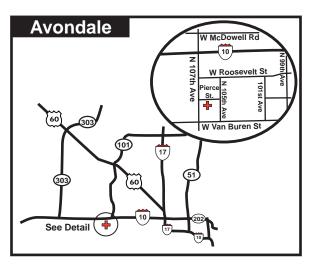
6860 Argon Street Unit B Denver Airport Business Park Denver, CO 80206





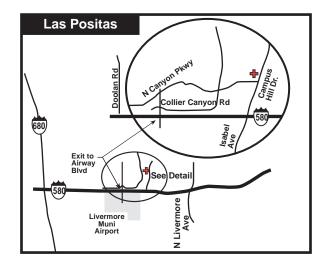
#### Universal Technical Institute

10695 W. Pierce Street Avondale, AZ 85323



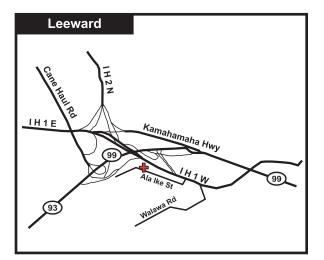
#### ♦ Las Positas College

3000 Campus Hill Drive Livermore, CA 94511



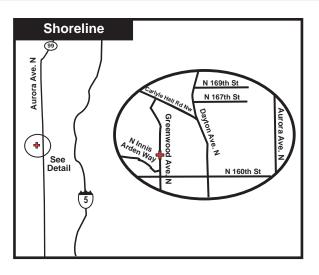
#### ♦ Leeward Community College

96-045 Ala Ike Pearl City, HI 96782



#### Shoreline Community College

16101 Greenwood Avenue N. Seattle, WA 98133

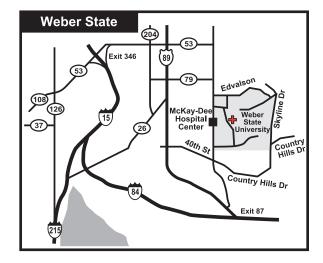




5

#### **Weber State University**

1504 University Circle Ogden, UT 84408-1504





### **Computer Systems**

#### **Computer System Standards/Specifications**

For the current recommended and minimum training system requirements for all GM STC training applications, please visit gmdesolutions.com > Home > Techline IT Solutions > Click on "GM IT Standards" to open the .pdf document. This downloadable PDF will help to ensure the proper performance of the GM Center of Learning website and online courseware. As GM dealerships become more dependent on technology to service vehicles, multiple PCs in the service department is a necessity.

#### **Computer System Parameters Affecting Courseware Performance**

Generally speaking, four factors affect the performance of the training software on a computer system:

- 1. System Configuration: GM has provided the standards with versions for operating systems, applications, and browsers in the "GM IT Standards" document noted above. While applications may run in other environments, or with different configurations, for optimum performance users should ensure they are adhering to these standards.
- 2. Memory: The more memory available in the computer, the better the performance.
- 3. Open Applications: Open applications slow the courseware performance. It is recommended that all other computer applications be closed when running GM STC courseware.
- 4. DVD/CDROM Speed: For training requiring DVDs or CDs, the faster the DVD/CDROM drive the better the performance

### Online Instructor-Led Training User Requirements for Participants

Many GM STC courses components are offered via the online system. This live, Internetbased training requires no special software. A headset equipped with a microphone must be used in order to participate in the training. This provides live access for "on the spot" question and answer opportunities. Participants must complete the prerequisite courses prior to enrolling in any online instructor-led courses.

It's easy to set up your computer for this training. In fact, most participants have the basics before they start.

#### Step 1:

To participate in a session, your computer should meet the following requirements:

- Windows 7, 8.1, or 10
- Internet 8 or higher (IE 9 recommended), Windows Edge, Mozilla Firefox, or Google Chrome
- Adobe Flash Player 13.0 or higher
- A hard-wired, high-speed connection (wireless connection is not recommended)
- Screen resolution of 1024 x 768 (minimum)

#### Step 2:

Your computer's built-in mic and speakers won't do a quality job. The built-in mic can pick up the audio output from your speaker. This causes an echo, which will be heard by all participants. Using a PC headset with attached mic helps prevent echoing. For best audio quality, a USB-type PC headset with attached microphone is recommended.

# **Training Resources**



Headset with Attached Microphone

Analog PC headset cable has two plugs:





USB PC Headset cable has one plug:



## **GM Training Materials**

General Motors Company and GM STC provide technical training to thousands of employees, dealers and other GM customers. Various publications and training courses have been developed providing the latest in technical information, along with numerous service procedures and systems operations for GM vehicles.

This specialized training and latest technical information is now available through the GM Training Materials Headquarters. The training material GM STC provides to each GM dealer service technician is available in the following formats:

- Web-Based Training
- Video On Demand (VOD) Videotaped courses with participant workbooks
- GM Service Know-How videos

For those who successfully complete GM Master Technician Certification, additional GM patches are available for purchase.

### To find out more, contact:

Center of Learning Help Desk using the Live Chat feature within Help/Support

Additional training courses and/or training materials are available for purchase by visiting either of these two sites below:

www.acdelcotraining.com or www.acdelcotds.com

# Training Resources



## Fleet

General Motors Company is pleased to provide comprehensive training opportunities to help you maintain competent Fleet service personnel and achieve increased productivity. There are four curriculum sources available for service technical training to address your specific needs.

### 1. GM STC

The goal of the GM STC Fleet technician training program is to provide the same high performance training that is available to GM dealership service technicians. The performance-based content is delivered through a blended learning curriculum.

GM STC utilizes the latest in training technology to effectively support the complex and emerging training requirements for service personnel with the objective to enhance the technician's ability to "Fix it Right the First Time".

GM STC uses a combination of delivery components to provide highly effective and inexpensive technician training. The different blended learning components available through the GM STC are:

Web Based Training (WBT)

 WBT courses are currently available to any previous attendees of GM Training Center courses via the Center of Learning (www.centerlearning.com)

Hands-on Training

- Delivered at 26 locations (space permitting):
  - See section 5 Training Resources in this catalog for GM's regional and satellite training locations
- Require prerequisite WBT and online instructor-led courses*

*A small fee may be associated with some of the training materials.

Online instructor-led course components, many of which are prerequisites to hands-on courses, are available for purchase. Service Know How Videos are also available for purchase although they may not be a training requirement. Please visit www.gmtechinfo.com. Hands-on classes, conducted by GM certified instructors, are offered on a space available basis, providing prerequisite WBT and online instructor-led courses have been completed prior to attendance. Contact one of the Regional Training Centers for more hands-on course, scheduling and enrollment information.

#### 2. GM Fleet Service Technical Training

This is classroom style training delivered by GM-certified Fleet instructors on-site at your Fleet's location. Existing programs are tailored for specific Fleet vehicles and designed for Fleet technicians. Past and current models are featured based on the vehicles in your Fleet and training requested.

The GM Fleet Technician Training Program offers:

- Customized content developed to meet the needs of your Fleet and your specific vehicle lines
- Hands-on technical assistance during the on-site training sessions
- Hands-on, instructor-led "system" courses and GM Fleet specific courses delivered onsite at your location

For more information, scheduling and to ensure the accuracy of response, email all questions to Jeff Holmes at jholmes@raytheon.com or call (248) 837-6665.

## ACDelco

ACDelco Technical Training is the service technician training arm for ACDelco and GM Customer Care and Aftersales. The ACDelco Technical Training program's objective is to train the aftermarket independent service center technician population across the United States. The mission of ACDelco Technical Training is to use the latest in training technology for independent service center personnel.

The ACDelco blended learning approach offers courses at a variety of instructional levels and training methods to suit virtually every person's needs. The following delivery media are currently provided to ACDelco service technicians:

- Web Based Training (WBT)
- TECHAssists
- Video on Demand (VOD)
- Service Seminars
- Instructor-Led Training (ILT)
- Self-Study materials
- In Shop Training
- Half Day Training
- TechTubes

The blended learning training techniques provide performance-based, flexible delivery methods that facilitate training deeper into the shop and enhance the ACDelco service technician's ability to "Fix it Right the First Time."

For more information regarding the ACDelco Technical Training program, please visit www.acdelcotraining.com and click on the Training tab.



## GM Automotive Service Educational Program (GM ASEP)

GM has specific technician training initiatives to assist dealers in developing their next generation of technicians. The GM technician training strategy is a three-tiered approach enabling dealers to train technicians at every level — from high school/GM



ASE Education Foundation to college/GM ASEP and beyond. For instance, GM ASEP offers training for technically inclined students pursuing a career in servicing and maintaining GM vehicles. The program is a joint effort between GM, its dealers and select colleges and universities across the United States, Canada, China and Ecuador. GM ASEP teaches exclusively on current GM products. GM ASEP allows students to alternate between attending college and working at a sponsoring GM dealership for over the course of two years. Upon graduation, students receive an Associates Degree in Automotive Technology (or similar).

GM ASEP incorporates advanced automotive technical training with a strong academic foundation of math, reading, and electronics, and both analytical and technical skills. Students earn an Associates Degree while working and learning on the job, resulting in a solid education combined with invaluable work experience. Since 1979, GM's continued commitment to identify and support GM ASEP colleges and universities has produced over 16,000 service technicians.

Any Chevrolet, Buick, GMC, and Cadillac dealer and ACDelco Professional Service Centers (PSC) are eligible to sponsor GM ASEP students.

### **General Contact Information**

Visit www.gmasep.org for locations and additional program information.

## **ASE Education Foundation**



### **Education Foundation**

We are the ASE Education Foundation. Our mission is to educate, prepare, and inspire a new kind of automotive service workforce. One that embraces innovation, today's workforce demands, and critical thinking. One that is career-ready, eager, and committed. The ASE Education Foundaton has designed a powerful new way of preparing students to meet today's demands.

Successfully preparing students for today's automotive service industry takes a multidisciplinary approach. ASE Education Foundation is part of the ASE Alliance and is the career-to-work arm of ASE that offers students the means to learn, do, try, ask, grow and then hit the ground running after graduation.

The ASE Education Foundation is engineered from the top-down to:

- give high school automotive technology students the opportunity and guidance to explore rewarding automotive careers.
- develop career-ready, motivated and inspired entry-level automotive technicians and service personnel.
- provide the tools and support to develop and practice the skills needed to succeed in the industry.

To learn more about the ASE Education Foundation, contact your GM Regional Office or Training Center. Or visit us on the web at: www.aseeducationfoundation.org.

## **Military Support**

As a company, General Motors has supported the U.S. military for more than a century, responding swiftly to the need for purpose-built vehicles for use in conflict situations. We've employed veterans and military families throughout our history and we continue to be a corporate leader in offering advocacy and significant ongoing financial support for military causes.

In 2013, GM joined forces with the U.S. Chamber of Commerce Foundation's Hiring Our Heroes program, a national effort to assist veterans, transitioning service members, and military spouses find meaningful employment.

The same year, GM's Service Technical College began offering free training to veterans and returning service members to prepare them for both technical and non-technical entry-level roles in a dealership. This training can also lead to opportunities with participating ACDelco Warehouse distributors and ACDelco Professional Service Centers.

But that's not all. GI Bill benefits can be applied to attending GM's Automotive Service Education Program (ASEP). The GM ASEP training program combines state-of-theart automotive service, appropriate academic coursework, and real-world internship

experiences to give students the best possible preparation for a career as an automotive technician, teaching exclusively on current GM products. The program incorporates advanced automotive technical training with a strong academic foundation of math, reading, and electronics, and both analytical and technical skills. GM ASEP is a joint effort between GM, its dealers, ACDelco Professional Service Center Program Members, and select colleges across the United States, Canada, China, and Ecuador.

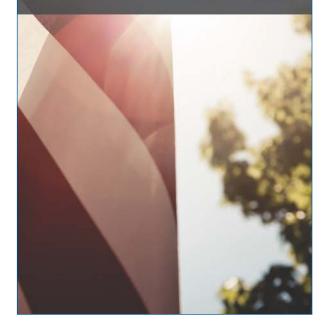
GM ASEP students alternate between the classroom and hands-on work experience at a sponsoring GM dealership. Upon graduation, students earn an Associate Degree in Automotive Technology (or similar), resulting in a solid education combined with invaluable work experience. Any Buick, Cadillac, Chevrolet, GMC or ACDelco Professional Service Center can sponsor GM ASEP students.

The Hiring Our Heroes initiative has helped more than 200,000 returning military service members and their spouses find training, career counseling and employment opportunities.

For more information, visit: www.HiringOurHeroes.org.



GM Supports the Military: We Support <u>You</u>



## **Shifting Gears**

The Shifting Gears Automotive Technician Training Program is designed to support Soldiers who will need to transition from military into the civilian workforce. The U.S. Army, GM, and Raytheon Professional Services LLC (GM's training partner) collaborated to design and deliver a training program that provides



eligible transitioning Army Soldiers with the necessary skills to become service technicians at GM dealerships.

The program consists of a 12-week customized, on-base technician training curriculum that includes classroom, online and instructor-led technical training. It launched in August 2014 at Fort Hood, TX and has graduated 335 almuni. GM provides the vehicles, Raytheon Professional Services developed and delivers the training, and the U.S. Army provides the space and Soldiers. Upon successful course completion and program graduation, students can achieve up to approximately 70% of GM's STS requirements and Silver Certificates in Electrical, Brakes, Engine Mechanical, Engine Repair, HVAC, and Diesel. Participants also have access to an Engagement Specialist, located at Fort Hood, to help prepare them for their civilian job search and support the regional GM team in connecting them with hiring dealerships.

Alumni from the Shifting Gears program receive prep training from Central Texas College in Electrical and Brakes ASE test taking, and the registration and test fees are both paid for by the Texas Workforce Commission, provided the alumni has a plan to possibly work in Texas.

A Department of Labor Apprenticeship Program can also be institued at GM dealership and used in tandem with the Shifting Gears Program. Shifting Gears alumni will place higher into DOL Apprenticeships, reducing training costs and time. The alumni also are able to receive a living stipend through the VA if they enroll in a DOL approved apprenticeship. The DOL Apprenticeship Program is a great starting point for any entry level technician and is also a great asset to GM dealerships to acquire and retain quality technicians.

When a Shifting Gears alumini is hired, the Center of Learning bills the Dealer Open Account in three installments of \$2,200 each:

- 1. The first, at Date of Hire.
- 2. The second, 90 days later.
- 3. The third, 90 days after that.

Should a Shifting Gears alumni separate from the dealership within six month of the Date of Hire (when the hiring Dealer activates the technician in the Center of Learning at www. centerlearning.com), however, the Dealer is eligible for a refund of paid training fees.



## **GM** Technician Career Training Program

General Motors continues to be one of the world's leading vehicle manufacturers with over 20 million vehicles on the road. In fact, GM dealerships employ over 29,000 technicians in the United States alone.

As a technician in the GM Technician Career Training program, you'll experience a blended training program of hands-on and online learning to diagnose, repair and maintain gasoline and diesel vehicles for the Chevrolet, Buick, GMC and Cadillac brands.

Program Type: Student-paid program

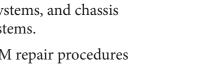
Program Length: 12 weeks

**Topics Covered:** 

 Electrical/Electronics: Understand vehicle networks, vehicle diagnostics, electrical diagnosis, body controls and supplemental restraints.

**GM Technician Career Training** 

- Brakes: Learn GM braking systems, including service and diagnosis of advanced braking systems and controls.
- HVAC: Discover how to service and diagnose GM heating, ventilation and air conditioning systems to factory specifications.
- Steering & Suspension: Understand steering and suspension systems, and chassis controls, including high-tech vehicle handling and stability systems.
- Engine Repair: Gain experience on the full range of current GM repair procedures and precision measurements.
- Engine Performance: Understand how to diagnose engine performance and emission systems of GM vehicles using the GM Global Diagnostic System.
- Diesel Engine Performance: Get specialized training on the 6.6L Duramax[™] diesel engine used in GM trucks.
- Maintenance and Inspection: Learn how to perform multi-point vehicle inspections and maintenance services.





#### Train at Universal Technical Institute (UTI) and earn GM Credits*

When you participate in the GM Technician Career Training program, you're getting skills and experience valued by every GM dealership. You can earn GM course credits that can elevate you to Bronze, Silver and Gold certification levels in multiple service areas upon graduation:

- 11 GM instructor-led classroom course credits
- 75 required web-based credits
- 82 supplemental enrichment web-based credits

*Number of credits required is subject to change.

#### **Program-Specific Requirements:**

- Be an active UTI or NASCAR Tech student
- Be at or beyond the midpoint of the training program
- Meet all admission requirements for this elective
- Complete all Automotive Technology courses with exceptions (please see current catalog for details)
- Financial aid may be available to those who qualify.
- For more information, visit: www.UTI.edu/GM





WE SUPPORT VOLUNTARY TECHNICIAN CERTIFICATION THROUGH

January 2020 © General Motors