



# 2018-2019 WMDA/CAR TRAINING SCHEDULE



Presented By  
**EAST Training**  
Enhanced Automotive Systems Technology, Inc.



## CLASS SCHEDULE

START DATE	FINISH DATE	DAYS	COURSE#	COURSE NAME
Nov. 14, 2018	Nov. 15, 2018	Wed/Thurs (4hrs each day)	211	Electricity, Electronics and Meter Diagnostics
Jan. 23, 2019	Jan. 24, 2019	Wed/Thurs (4hrs each day)	214	O2 Air fuel Sensor & Catalytic Converter
Mar. 9, 2019	Mar. 9, 2019	Saturday AM (6hrs)	216	OBD-II Scan Tool Operation & Diagnostics
Apr. 17, 2019	Apr. 18, 2019	Wed/Thurs (4hrs each day)	223	Ford Electronic Control Diagnostics
May 8, 2019	May 9, 2019	Wed/Thurs (4hrs each day)	235	Evaporative Systems OBD-II Monitoring
Oct. 9, 2019	Oct. 10, 2019	Wed/Thurs (4hrs each day)	131	Electronics in the Modern Automobile
Oct. 23, 2019	Oct. 24, 2019	Wed/Thurs (4hrs each day)	131B	Electronics in the Modern Automobile Up-Date

## CLASS DESCRIPTIONS

### 211 Electricity, Electronics and Meter Diagnostics

This class reviews electrical concepts-atomic structure, charges, magnetism, and Digital Multi-Meter use. Circuits are examined and analyzed. The student will participate in practical application of Ohm's and Kirchoff's laws. Students will discover many advanced uses for the digital meter. This is a hands-on class, each student will need to bring their own meter. Hands-on testing will be performed by the student on electrical circuit training aids, and on vehicles.

### 214 O2 Air fuel Sensor & Catalytic Converter Diagnostics

Learn to pinpoint driveability and emission problems by looking at the O2 sensor's output. Learn how to detect exhaust gas levels by looking at the O2 sensor's waveforms. Compare the O2 signal to the computer's fuel command to narrow down your search for the problem. Learn about the different types of catalytic converters including: pre-cats, two way, three way, dual bed and dual bed with supplemental air. How to test catalytic converters using many different methods and tools. Learn how to comply with government regulations when replacing catalytic converters. Bring your DVOM or DSO.

### 216 OBD-II Scan Tool Operation & Diagnostics

Learn OBD-II regulations and the J-1930 terminology. Learn the advancements in OBD-II. See how advanced computer monitoring can detect EGR, catalytic converter and emission faults. See how the PCM can detect misfires. Learn to perform an OBD drive cycle. See what a readiness code is, and how to set it. Bring your scan tool.

### 223 Ford Electronic Control Diagnostics

Understanding the Ford EEC system diagnostics – see how the EEC system evolved and where it is going. This course picks up where the OBD-II course left off. We will cover system Evolution- EEC-I, II, III, MCU. Diagnostic Capabilities, DLC connectors, Diagnostic tools and Equipment, Definition of system tests, Self tests, KOEO, KOER. Continuous monitoring, FMEM, Adaptive strategies, Re-learn Procedures, Code terminology- Slow codes, Fast codes, Fault codes. Diagnostic test flow, Scan data. This is a hands-on class, Bring your scan tool.

### 235 Evaporative Systems OBD-II Monitoring

Enhanced and Non-enhanced evaporative systems will be included on Asian, European, and domestic vehicles. Includes comprehensive coverage of operational theory, system components, & component monitoring strategies on systems with and without leak detection pumps. Evaporative system diagnosis and DTC repairs will be covered. Fuel cap testing principles and procedures will also be included. The latest Natural Vacuum Leak Detection systems are covered.

### 131 Electronics in the Modern Automobile

Application of electronic components in the automobile. Semiconductors, barrier voltage, diodes, for rectification, circuit protection, current control, zener diodes for voltage regulation. LED's, transistors NPN, PNP, Darlington pairs, SCR's (Silicon Controlled Rectifiers), open collector transistors – construction function and testing. Resistors and condensers in automotive circuits. Several types of automotive electronic circuits will be evaluated and explained. Schematics will be presented describing construction of several useful shop diagnostic tools, which can be assembled using knowledge learned in this course. Students are asked to bring their DVOM/DMM.

### 131B Electronics in the Modern Automobile Up-Date

This course builds on Electronics module 1. We will cover additional electronic components and systems used in the automobiles of today and tomorrow. We will delve deeper into the use of semiconductors- Transistors, photoelectric devices – photocells and photoresistive components. We will be constructing more complex circuits on our electronic trainer boards. We will cover transistor gain and build circuits to demonstrate and measure gain. Case studies will be included which will demonstrate how your new found knowledge of transistor operation will allow you to diagnose and actually repair failed components. We will explain and demonstrate the use of Logic probes and Logic pulsers. This is a hands-on class. Students are asked to bring their DVOM/DMM.

See Class Locations and Registration Form on next page.

## CLASS LOCATIONS

### November 14 & 15, 2018 – 211 Electricity, Electronics and Meter Diagnostics

Class will be held at Auto Sense, 8209 Cloverleaf Dr., Millersville, MD 21108 (410-761-1599).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.

### January 23 & 24, 2019 – 214 O2 Air fuel Sensor & Catalytic Converter Diagnostics.

Class will be held at Hillmuth Automotive Columbia, 6810 Oak Hall Lane, Columbia, MD 21108 (410-381-1124).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.

### March 9, 2019 – 216 OBD-II Scan Tool Operation & Diagnostics

Class will be held at Community College of Baltimore County (CCBC), 800 South Rolling Road, Baltimore, MD 21228. Pre-Registration required at [www.WMDA.net](http://www.WMDA.net). Registration begins at 8:00 a.m. until 8:55 a.m. Class begins promptly at 9:00 a.m. Lunch is noon to 1:00 p.m. Class resumes promptly at 1:00 p.m. until 4:00 p.m.

### April 17 & 18, 2019 – 223 Ford Electronic Control Diagnostics

Class will be held at Auto Sense, 8209 Cloverleaf Dr., Millersville, MD 21108 (410-761-1599).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.

### May 8 & 9, 2019 – 235 Evaporative Systems OBD-II Monitoring

Class will be held at Auto Sense, 8209 Cloverleaf Dr., Millersville, MD 21108 (410-761-1599).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.

### October 9 & 10, 2019 – 131 Electronics in the Modern Automobile.

Class will be held at Hillmuth Automotive Columbia, 6810 Oak Hall Lane, Columbia, MD 21108 (410-381-1124).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.

### October 23 & 24, 2019 – 131B Electronics in the Modern Automobile Up-Date

Class will be held at Hillmuth Automotive Columbia, 6810 Oak Hall Lane, Columbia, MD 21108 (410-381-1124).

Food will be served at 5:30 p.m. Classes meet for 4 hours each day and begin at 6:00 p.m.



## REGISTRATION FORM

Please check course(s) of interest.

Attendee #1 _____	<input type="checkbox"/> 211	<input type="checkbox"/> 214	<input type="checkbox"/> 216	<input type="checkbox"/> 223	<input type="checkbox"/> 235	<input type="checkbox"/> 131	<input type="checkbox"/> 131B
Attendee #2 _____	<input type="checkbox"/> 211	<input type="checkbox"/> 214	<input type="checkbox"/> 216	<input type="checkbox"/> 223	<input type="checkbox"/> 235	<input type="checkbox"/> 131	<input type="checkbox"/> 131B
Attendee #3 _____	<input type="checkbox"/> 211	<input type="checkbox"/> 214	<input type="checkbox"/> 216	<input type="checkbox"/> 223	<input type="checkbox"/> 235	<input type="checkbox"/> 131	<input type="checkbox"/> 131B
Business _____	Contact _____						
Address _____	City/State/Zip _____						
Phone _____	Fax _____						Email _____

## REGISTRATION FEES

Member Rate \$199.00 per Technician      Total number of Courses selected x \$199.00 = **Total Amount Due \$** \_\_\_\_\_

## PAYMENT OPTIONS

Check enclosed (payable to WMDA) and mail to: WMDA, 1532 Pointer Ridge Place, Suite G, Bowie, MD 20716

Charge my:  Visa     MasterCard     American Express

Name on Card \_\_\_\_\_ Card # \_\_\_\_\_

Expiration Date \_\_\_\_\_ CVV Code (on back of card) \_\_\_\_\_

Signature \_\_\_\_\_ Billing Zip Code \_\_\_\_\_

Checking this box represents my electronic signature

For Credit Card Payments Fax Registration to 301-390-3161 or Email to [dwebster@wmda.net](mailto:dwebster@wmda.net).  
For more information, contact Debra Webster at 301-390-0900, ext. 101.