Department of the Environment
Vehicle Emissions Inspection Program

Training Class Information

Course Descriptions for June 2011 Training

Back by popular demand the **FREE** training class **"Advanced Engine Electronic Control Systems– Input and Output component & System Testing".** This class will be taught by Joe Thomas, Joseph Grundvig and William Speigle of Utah's Weber State University on June 10 and 11th 2011 from 9 am to 4 pm at the Homer S. Gudelsky Institute for Technical Education on the Rockville campus of Montgomery College. The input component section of the course will be taught in the morning and the output component section will be in the afternoon. The classes are the same on both days. (This class was originally scheduled for the 3rd and 4th of June.)

The input portion of the course reviews electrical circuit theory of operation for a through understanding of dynamic circuit analysis and advances the participant from switched input to Frequency Modulation (FM) input systems with emphasis on emission control systems. This section will focus on: switched circuits, variable resistance, variable reluctance, digital inputs, wiring schematics, usage of digital multimeter and digital storage oscilloscope, voltage signal patterns, and comparison between scan toll data and live circuit measurements.

The output portion of the course reviews electrical circuit theory of operation for a through understanding of dynamic circuit analysis and advances the participant from switched output to Pulse Width Modulation (PWM) output systems with emphasis on emission control systems. This section will focus on: switched on/off controls, PWM controls, wiring schematics utilization for system and component operation determination, digital multimeter and digital storage oscilloscope usage for dynamic circuit measurements, voltage signal pattern discussions and demonstrations, and comparison between scan toll data and live circuit measurements.

Demonstrations and on-vehicle exercises are will be used in both course sections to reinforce classroom discussions and are designed to increase diagnostic and repair effectiveness.

Please contact Margie Wise with MDE to register for this course. She may be reached at (410) 537-3197 or by e-mail mwise@mde.state.md.us. All of the training sessions will cover the same material. For directions to the Homer S. Gudelsky Institute for Technical Education of the Rockville Campus of Montgomery College, call 240-567-5000 or please visit the following website.
http://cms.montgomerycollege.edu/edu/maps.aspx?id=23746