VEHICLE TECHNOLOGY AND TRENDS 2014

NEW14

Enhanced vehicle technology, lightweight construction materials, and safety aids continue to gain ground as fuel economy standards evolve and technology continues to advance. Many of these new features and conveniences will soon be standard in new model vehicles. For repairers, these changes require knowledge and command of new technology and trends. This I-CAR® course provides an "auto show view" of vehicles that will soon be commonplace in many repair facilities and delivers information that technicians need to get ahead of the curve.

Course Content

Module 1—Trends and Industry Influences

The first module opens with some of the latest technology available on today's vehicles and the factors driven by manufacturing, mandates, and repair procedure changes that influence trends in technology. The student will gain information on a variety of topics, including; regenerative braking on non-hybrids, enhanced aerodynamics, carbon fibre roof panels, a continuing aluminium surge, the rising popularity of utility vans, and the IIHS small overlap frontal test. The student will also be introduced to new repair technologies, such as methods to repair carbon fibre, smart MIG welders, and new ways to prepare estimates.

Module 2—North American Vehicle Makers

The course continues with a description of features, technologies and materials found on new North American vehicles, such as Chrysler, Ford and General Motors. The student will learn about the return of the Jeep Cherokee, Chrysler's efficiency strategies, Ford Fiesta sectioning recommendations, ultra-high-strength steel on the 2014 Ford Transit, Chevrolet Corvette Stingray aluminium frame repair, new materials and repair procedures on the Chevrolet Silverado/GMC Sierra, ultra-high-strength steel on the Chevrolet Impala, and the hybrid system on the extended-range Cadillac ELR.

Module 3—Asian Vehicle Makers

The third module of the course introduces the student to new features found on Asian vehicles including Honda/Acura, Toyota/Lexus, Mazda, Nissan/Infiniti and Subaru vehicles. The student will gain insight into repair of the Honda Accord Plug-in Hybrid-Electric, an identification of the new front crush structure on the Acura MDX, what is different about the Honda steel/aluminium door, Lexus IS construction techniques, the Mazda6 regenerative braking system, the Infiniti Q50 steer-by-wire option, and Subaru's first hybrid, the XV Crosstek Hybrid.

Module 4—European Vehicle Makers

This module highlights new features being introduced by European vehicle makers including BMW, Jaguar, Mercedes-Benz and Audi/ Volkswagen. Topics discussed in this module include details on the BMW i3 and M6 Gran Coupe, the Jaguar F-Type, the near-autonomous Mercedes -Benz S-Class and the CLA body structure.

Module 5—Continuing Trends and Possibilities

The final module of the course concludes with Information on trends that point to future innovations in vehicle technology. The student will learn that the industry is considering the use of aluminium wiring harnesses, whether to allow high beams to stay on at all times. BMW laser headlamps, a vehicle that gets 260 miles per gallon, aluminium-air batteries and more.

Recommendations

This course covers a variety of topics related to technology in current and future vehicles. It is recommended that students have a basic understanding of several of the subject areas contained in the course and understand where they can find repair information on new trends. Courses that are helpful include:

- Hybrid Electric and Alternative Fuel Vehicles (ALT02A)
- Damage Analysis of Advanced Automotive Systems (DAM07)
- Advanced Restraint Systems (RES02)
- Steel Unitised Structures Technologies and Repair (SPS07)

Registration

To register for Vehicle Technology and Trends 2014 (NEW14) click here

Course Highlights

Points: 1

Format: Classroom

Estimated Duration: 4 Hours

Meets the I-CAR training requirements for the following roles:

- ESTIMATOR
- STEEL STRUCTURAL TECHNICIAN
- NON-STRUCTURAL TECHNICIAN
- REFINISH TECHNICIAN
- ASSESSOR

After completing this course, you will be able to:

- Describe features and technologies that distinguish newer model vehicles from their predecessors
- Recognise new vehicle materials and designs, safety features, collision-warning systems and alternative fuel systems
- Have insight into repair procedures for technology trends such as aluminium structures, ultra-high-strength steel and carbon fibre.
- Understand how the economic climate, new efficiency practices and government mandates are contributing to rapid changes in vehicle technology
- Identify the newest technologies found on North American, Asian and European vehicles
- Identify the trends that will become tomorrow's standard features

I-CAR® AUSTRALIA