Michigan Alliance for Greater Mobility Advancement

Course Title: Injuries Anatomy, Biomechanics, and Federal Regulation

Course Length: 3 days

Time Online: N/A

Time in Class: 24 hours

Time in Lab: N/A

Class Size: Minimum 5 / Maximum 30

Price Per Student: $2,450.00*

Location: Company Site

Course Description:

Safety continues to be one of the most important factors in motor vehicle design, manufacture and marketing. This seminar provides a comprehensive overview of these critical automotive safety considerations: injury and anatomy; human tolerance and biomechanics; occupant protection; testing; and federal legislation. The knowledge shared at this seminar will enable attendees to be more aware of safety considerations and to better understand and interact with safety experts.

This course has been approved by the Accreditation Commission for Traffic Accident Reconstruction (ACTAR) for 18 Continuing Education Units (CEUs). Upon completion of this seminar, accredited reconstructionists should mail a copy of their course certificate and the $5 student CEU fee to ACTAR, PO Box 1493, North Platte, NE 69103

Course Learning Objectives
By attending this course, participants will be able to:

- Recognize the significance of various injuries, how to rank order and quantitatively compare their severity, and how to access overall severity of multiple injuries.
- Assess the significance of various test results, know their basis and how to interpret them.
- Identify the biomechanical and legal basis of safety regulations and their changes (especially FMVSS 208 and 214).
- Describe the different measuring capabilities of various test dummies including Hybrid III test dummies.
- Contrast the difference between impact and deceleration injuries for various body regions and explain the "third collision," which takes place within the vehicle.

Course Syllabus

- Introduction & Background
- Next Generation Restraint Systems

* Price based on minimum enrollment, subject to change

- Injury Scales -- Abbreviated Injury Scale (AIS); Injury Severity Score (ISS); Trauma Score; Harm; Injury Priority Rating (IPR), Functional Capacity Index (FCI)
- Diagnostic Images of Injuries -- Plain Film X-rays, CT, MRI
- The Role of Alcohol
- Anatomy, Injuries and Tolerance Parameters (By Body Region) -- Head & Neck; Spine; Chest; Abdomen; Pelvis and Lower Extremities
- Test Devices: Basic Differences and Measuring Capabilities for Front and Side Impact Tests
- FMVSS 201, 208, 214 and NCAP and LINCAP -- Current & Proposed Injury Criteria and their Biomechanical Basis
- Regulatory Process -- Federal Rulemaking Process and NHTSA -- Legal Authorizations and Restrictions
- Assessing Pre-existing Condition and Previous Injury
- Older Drivers – Special Needs