Traffic Crash Reconstruction 1
(73 ACTAR CEUs)

Traffic Crash Reconstruction 1 has been extensively revised and updated and is now based on the greatly expanded 2010 edition of Traffic Crash Reconstruction by Lynn B. Fricke.

In Traffic Crash Reconstruction 1, students learn the skills needed to determine how a crash likely occurred. The course focuses on analyzing and interpreting information that has been collected at lower levels of investigation in order to describe the crash and the events leading to actual impact in as much detail as possible.

Through lectures, course material and the extensive analysis of real-world case studies, students are provided the training necessary to successfully reconstruct traffic crashes. Students learn to find undetected facts in available information and to deduce from these facts the circumstances that prove or disprove a theory of how a crash occurred.

Course Content

» Basic equations of motion review - Newton's law of motion review, weight shift in slowing and resultant drag factor
» Heavy Truck Crash Reconstruction - braking capabilities, speed estimates, roll-over problems and speed from gear ratios
» Conservation of Momentum - collinear collisions, oblique collisions and vector diagrams
» Energy - kinetic energy, speed estimates from damage and vehicle collapse and direction of thrust
» Additional Considerations - angle of collision and maximum engagement, marks on the road, driver strategy and tactics and the computer in reconstruction
» Case Presentation - testimony, report writing and exhibits
» Case Studies - opposite-direction collision, same-direction collision, single-vehicle collision, angle collision, pedestrian collision, car-train collision and truck collision

Who Should Attend?

Traffic Crash Reconstruction 1 is designed with traffic reconstructionists in mind. Participants must possess skills normally learned during at-scene and technical crash investigation training (Crash Investigation 1 and 2). These skills include the ability to prepare after-crash situation maps, classify and interpret vehicle damage and properly interpret marks on the road and a proficiency in algebra and basic physics.

Please note that registrants for this course who have not successfully completed NUCPS's Vehicle Dynamics course will be asked to complete a readiness examination prior to participating in the class.