Motorcycle Traffic Crash Reconstruction

Develop the skills needed for advanced investigation and analysis of motorcycle traffic crashes.

AREAS OF FOCUS:

- Anatomy of a Motorcycle
- Angular Momentum
- Braking Systems & Rider Performance
- Crash Causation
- EDR & Dataloggers
- Kinematics Review, including units, conversions & equation derivations
- Monte Carlo Analysis & Speed Range
- Motorcycle Acceleration Behavior & Gearing Analysis
- Motorcycle Dynamics
- Motorcycle Inspection
- Rider & Pillion Vault Analysis
- Rider Perception-Response Time
- Sliding Friction
- Swerve Dynamics & Rider Performance
- Simulation Analyses & Wheelbase Analysis for Determining Impact of Speed

Thoroughly redesigned and updated, Motorcycle Traffic Crash Reconstruction examines the unique characteristics and special challenges that arise in collisions involving motorcycles and their operators. This four-day course equips crash investigation and reconstruction professionals with a firm understanding of motorcycle dynamics and reconstruction techniques, combining a mix of hands-on practical lessons using real motorcycles and sample evidence with classroom case study analysis.

LOUIS PECK, COURSE INSTRUCTOR

A leader in the motorcycle crash reconstruction field and ACTAR Governing Board member, Louis Peck, MS, is a licensed mechanical engineer, published researcher, and former motorcycle expert road racer who possesses a unique understanding of motorcycle dynamics and capabilities. Peck's paper "Glancing and Stopping Behavior of Motorcyclists and Car Drivers at Intersections" was published in the *TRB Transporation Record* in 2011. He is also the author of "Motorcycle Sliding Friction for Accident Reconstruction" (*Proceedings of the 10th International Motorcycle Safety Conference*, 2014: Cologne, Germany). Peck is an expert witness in state and Federal courts and presents at national and international conferences. In 2016, he directed motorcycle crash testing at the World Reconstruction Exposition where his team conducted the first public crash test of Harley-Davidson motorcycles. Those efforts resulted in updated motorcycle impact-speed equations, which SAE published in 2018.

Register Now!

PREREQUISITES
Traffic Crash Reconstruction 1 & 2

ACTAR UNITS
32 ACTAR CEUs

REGISTRATION
Use the below QR code to find an upcoming course section or visit nucps.northwestern.edu/crashelectives