



# Advanced Crash Reconstruction Utilizing Human Factors Research

Understand and assess the human behavior involved in traffic crashes.

## COURSE CONTENT:

- Perception-Response Time
- Interactive Driver Response Research (IDRR)
- Driver decision making
- Nighttime recognition
- Gap acceptance for left & right turns, and through movements for drivers, riders & pedestrians
- Pedestrian walking speeds
- Acceleration
- Lateral acceleration (swerving) for cars, motorcycles, and commercial vehicles
- Forward & backward accelerations
- Driver responses to traffic signals, deceleration choices, reaction time & probability of stopping
- More!

This advanced reconstruction course focuses on obtaining a better understanding of assessing the human role in the crash sequence, including such topics as: response and reaction times (and delays), recognition, perception, nighttime recognition and impairment, and more. Students obtain a better understanding of drivers and pedestrian behavior in various crash scenarios and learn to compare and evaluate human actions.

Participants also are introduced to Driver Research Institute's Response software — a research-based human factors tool that helps analyze driver responses and is based on research from course instructor Dr. Jeff Muttart and other industry professionals. Students learn how to incorporate this software into their crash reconstructions.

Attendees are given a 7-day trial of Response, the cloud-based human factors analysis software.

## COURSE INSTRUCTOR

**Jeff Muttart, M.S., Ph.D.**, is an internationally respected researcher in driver behavior. A recipient of the National Transportation Safety Board Award for Contributions to Safety and the Wallace Award for Excellence in Research, he is the author of more than 50 peer-reviewed articles on traffic safety and driver response in crash and near-crash events. A frequent conference speaker, he was the keynote speaker at WREX16, the world's largest crash reconstruction conference.

## Register Today!

**FIND AN UPCOMING COURSE**  
[nucps.northwestern.edu/crashelectives](http://nucps.northwestern.edu/crashelectives)



## PREREQUISITES

*Traffic Crash Reconstruction 1 & 2; Microsoft Excel proficiency is highly recommended*

## ACTAR UNITS

40 ACTAR CEUs