Pedestrian & Bicycle Crash Reconstruction

Gain the unique skills required for investigation into these frequently serious traffic crashes.

COURSE CONTENT:

- Identification & documentation of information from the road, vehicle & body
- Investigating hit-and-run pedestrian and bicycle crashes
- Pedestrian motion as a result of a vehicle collision
- Pedestrian & bicycle crash reconstruction techniques
- Vehicle speed estimates
- Vehicle dynamics review along with time-distance analysis
- Pedestrian / bicyclist strategy & tactics
- Pedestrian visibility & conspicuity
- Field projects
- Case analysis / case studies

Vehicle-vs.-pedestrian or -bicycle crashes often result in severe injuries, escalating the importance of thoroughness and accuracy in the investigation and reconstruction processes.

In this advanced course, students learn the math equations to model such collisions and the appropriate formulas for varying crash scenarios. Students also learn how to determine first-contact positions of pedestrians, bicycles, and vehicles and to estimate the speed of a striking vehicle. Other course topics include the motions of a human body as a result of an impact, empirical data for walking and running pedestrians and for bicycle crashes. Students also receive an introduction to injury biomechanics.

This course includes three lab workshops, including a pedestrian visibility workshop. Other field projects include developing data from pedestrian and bicycle velocities and studying drag factors of bodies on various surfaces.

Register Now

PREREQUISITES:
Traffic Crash Reconstruction 1; Traffic Crash Reconstruction 2 is highly recommended.

ACTAR Members:
Earn 40 ACTAR CEUs

REGISTRATION
Use the below QR Code to select an upcoming course section and register - or visit nucps.northwestern.edu/crashelectives