



# Vehicle Dynamics

**Learn the essential physics and math to advance to Traffic Crash Reconstruction.**

## **COURSE CONTENT:**

- **Newton's laws of motion**
- **Coefficient of friction and drag factor**
- **Introduction to basic motion equations: velocity, time, acceleration, and distance**
- **Momentum - collinear (inline)**
- **Time-Distance Analysis**
- **Physics & mathematics overviews**

**Vehicle Dynamics** introduces students to the mathematical formulas and physics that are relevant to traffic crash investigation and reconstruction. The course curriculum focuses on mechanics, motion and forces, and the effects of such forces during a collision event.

**The third course in our essential five-class series, Vehicle Dynamics is an introduction to basic mathematical procedures and the basic laws of physics necessary for those who wish to attend Traffic Crash Reconstruction 1 and Traffic Crash Reconstruction 2.**

Our expert course instructors present Newton's Laws of Motion and the proper application of physics principles to equations of motion in order to solve for velocity, time, acceleration, and travel distances. Following the presentation of these concepts, instruction advances to the discussion of vehicle braking, drag factors, and the coefficients of friction and time-distance analysis.

## **Register Now**

**EVERETT, WASHINGTON**  
January 29 - February 2, 2024

**COURSE SPONSOR:**  
Everett Police Department

**COURSE LOCATION:**  
Snohomish County 911  
1121 SE Everett Mall Way  
Everett, WA 98208

**TUITION**  
\$995 per person

**REGISTRATION**  
Seats are limited.  
Register or learn more at:  
[nucps.northwestern.edu/crashsequence](https://nucps.northwestern.edu/crashsequence)

