



## Spring 2025: Traffic Safety and Injury Control

Civil and Environmental Engineering C265

(Cross-Listed with Public Health C285)

3 Units | Class #29663 | Tu-Th | 3:30-5PM

O'Brien 212

Traffic crashes are a major cause of death and disability worldwide. In the United States, they are the leading cause of death and disability for individuals aged 1 to 34, and a significant factor across all age groups.

This course explores engineering and behavioral science principles relevant to preventing traffic crashes and injuries. It emphasizes a Safe System approach by considering human behavior, vehicle design, and roadway design, with a particular focus on vulnerable road users, such as pedestrians and bicyclists.

The course also examines the implications of emerging technologies, including self-driving vehicles, crash-avoidance systems, and vehicle-infrastructure integration, for safety across all modes of transportation.

### Students will develop specific skills, including:

- Identifying crash causal factors.
- Analyzing crash risk in road networks.
- Identifying and evaluating countermeasures.
- Assessing the safety implications of emerging technologies.

Grades will be based on homework assignments, assessments, participation, and projects, with the latter carrying greater weight. Students are encouraged to turn their projects into research papers for submission to conferences or journals. Guidance will be provided throughout the process.

The course is open to students from all academic backgrounds. Undergraduates should contact the instructor for permission.

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### INSTRUCTORS:

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