

# SPRING 2019: TRAFFIC SAFETY AND INJURY CONTROL

Civil and Environmental Engineering C265

(Cross-Listed with Public Health C285)

3 Units | Course #28944 | Tu-Th | 3:30-5PM | 65 Evans



Injuries from traffic crashes are the first or second cause of unintentional death for people over the age of 1 in the United States, and in many other countries around the world.

In light of this, contemporary transportation safety professionals strive to build a system on which no street user can be severely or fatally injured. To accomplish such a safe system it is necessary to effectively harness all of the core protective opportunities provided by the system. For example, if we're considering bicycle safety this includes safe street design with adequate separation from motorized traffic, safe bicycles, safe vehicles, safer cyclist behavior, safer behavior of other street users, all of which are governed by appropriate speeds, and supported by effective cyclist protection and the emergency medical system when needed.

The course will utilize data to examine principles of engineering, planning, behavioral science, and policies to prevent catastrophic outcomes of collisions across various transportation modes. The course will emphasize safety of vulnerable road users (pedestrians and bicyclists), as well as safety of emerging modes such as self-driving cars and e-scooters.

## Specific skill sets developed in the class:

- (i) Assess collision risk in a road network
- (ii) Analyze and classify crash causal factors
- (iii) Identify and evaluate countermeasures
- (iv) Evaluate safety implications of self-driving vehicles and other emerging technologies

Class grade will be based on homework assignments (30%), participation (20%), and a research paper (50%). The research paper is often successfully submitted to conferences and journals after the class has ended.

*This course is open to students of all academic backgrounds. Undergraduates welcome; please contact instructor for permission.*

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## INSTRUCTORS:

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## GUEST LECTURER

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