

Traffic Safety (20-555)

Objective:

- To introduce graduate students to methodologies on measuring, estimating and evaluating roadways in terms of crash frequency and crash severity.
- To provide methodologies on design of longitudinal guardrail, crash cushions, breakaway sign supports and street lighting.

Part A: Introduction, Human Factors, and Fundamental

1. Introduction and overview
2. Human Factors
3. Fundamentals

Part B: Roadway Safety Management Process

1. Network Screening
2. Diagnosis
3. Countermeasures
4. Economic Appraisal
5. Prioritize Projects
6. Safety Effectiveness Evaluation

Part C: Design Methodologies

1. Longitudinal Guardrail
2. Crash Cushions
3. Breakaway Sign Supports
4. Street Lighting

Texts:

1. Highway Safety Manual (HSM), First Edition, 2010.
2. Safe Mobility: Challenges, Methodology and Solutions, Dominique Lord and Simon Washington, 2018.

