

CEE 495/595: Autonomous Vehicles and Urban Transportation

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Prerequisites: CEE 470/570 or Instructor's Approval

Tuesdays 5:45PM-8:25PM—Spring 2016



Autonomous Vehicle and Driver Assist Technology Implications on the Urban Transportation Problem

CEE 495/595 covers the transportation and traffic engineering aspects of the Urban Transportation Problem and the impacts and implications of the advancement of autonomous vehicles and driver assist technologies. Fundamental traffic flow theory and capacity analysis will be discussed. Students will complete a class project employing their knowledge of the fundamentals of Transportation and Traffic Engineering to demonstrate potential future changes in transportation systems design and modal choices.

Course Objectives:

Upon completion of the course, students will be capable of describing and have knowledge of the following:

1. Key components of the Urban Transportation Problem
2. Basic Transportation system capital and operating costs
3. Modal choices in the urban transportation landscape
4. Key capabilities of driver assist and autonomous vehicle technologies that will impact traffic flow theory and capacity analysis
5. Implications in the capabilities of existing and future transportation systems.