

**Course Name:**

Advanced Traffic Engineering

<b>Course Number:</b> 20-551	<b>Credit:</b> 3
<b>Program:</b> Graduate	<b>Course Type:</b> Technical Required
<b>Prerequisite:</b> -	<b>Corequisite:</b> -

**Course Description (Objectives):**

The main goal of this course is to familiarize students with the fundamentals of traffic characteristics to estimate and calculate the variables needed for traffic planning and roadway performance. Students will learn about concepts such as capacity, delay, methods for controlling signalized intersections, and the design of intersections and interchanges.

**Course Content (outline):**

- Chapter 1: Introduction to Traffic Engineering
- Chapter 2: Components of Traffic
- Chapter 3: Traffic Studies and Planning
- Chapter 4: Intersections
- Chapter 5: Highways and Interurban Freeways

**References:**

- Roger P. Roes, Elena S. Prassas, William R. Mc Shane., Traffic Engineering, 4th ed. 2011