

Department of Engineering Technology and Surveying Engineering

Course Number and name: ET 442 Intelligent Transportation System

Credits and Contact Hours: 3 cr.

Instructor's name: Ruinian Jiang

Textbook: textbook is not required (all the materials are posted on line)

Specific Course Information:

Designation: Technical selective course for the civil engineering technology program, civil engineering students, and transportation professionals.

Credits and Contact Hours: 3 cr. On-line course

CLASS MEETING TIME & LOCATION: Flexible

Course Description: **Intelligent Transportation System** (ITS) introduction, traffic flow theory, telecommunication and information technology application in transportation, ITS system architecture and standards, transportation management, incident and emergency management, corridor management, dynamic route guidance and in-vehicle systems, and traffic signal timing.

Prerequisites: Math 192G or Math 236

Course Goals/ Objectives:

- to introduce basic traffic engineering and intelligent transportation systems (ITS) concepts
- to acquaint students with problem solving methods in ITS
- to provide students with practice in applying fundamental, systematic approaches to solving applied ITS problems.

Contribution of Course to Meeting the Professional Component

To introduce the student to basic concepts and methods of traffic engineering and traffic management. The primary objective is to expose students to basic knowledge on the ITS and so that they will be able to choose traffic engineering as their career path.

Basic topics:

- ITS Awareness Overview
- National ITS Architecture
- Deploying ITS: Strategic Planning and Implementation
- Transportation Management
- Database Management Systems