University of Wisconsin - Madison
College of Engineering [EGR]
Last Offered: 2014 Fall [1152]
Direct Link to this Syllabus :
http://aefis.engr.wisc.edu/index.cfm/page/CourseAdmin.ViewABET?coursecatalogid=373&pdf=True

1. **CIV ENGR 574, Traffic Control**
2. **Credits :** 3 **Contact Hours :** 2.5
3. **Textbook and Materials :** Traffic Engineering; Roess, Prassas, McShare; Fourth; 2011
4. **Specific Course Information :**

a. **Brief description of the content of the course (Course Catalog Description) :** Traffic data collection studies; measures of effectiveness and evaluation of traffic system performance; design and application of traffic control devices; design of traffic signal systems; operational controls and traffic management strategies.
b. **Pre-requisites or Co-requisites :** Civ Engr 370 or consent of instructor
c. **This is a Selected Elective course.**

- **Specific Goals for the Course :**

a. **Course Outcomes :**

1. Obtain an understanding of intersection traffic operations, traffic data collection methods, traffic control devices, and analysis techniques
2. Learn both quantitative and computerized techniques for designing and optimizing signalization at intersections. The student will be efficient in using several software packages and understand the fundamental differences between each
3. Apply the principles of traffic engineering to a specific problem. The student will be able to evaluate, analyze, design, optimize, simulate, and present, in both written and oral formats, a thorough description of their analysis process

- **ABET Student Learning Outcomes :**

(b) Ability to design and conduct experiments, analyze and interpret data.
(c) Ability to design a system, component, or process to meet desired needs.
(d) Ability to function on multidisciplinary teams.
(e) Ability to identify, formulate and solve engineering problems.
(g) Ability to communicate effectively.
(h) The broad education necessary to understand the impact of engineering solutions in a global and societal context.
(i) Recognition of the need for and an ability to engage in life-long learning.
(j) Knowledge of contemporary issues.
(k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

- **Program Specific Student Outcomes :** (l) An ability to explain basic concepts in management, business, public policy, and leadership
(m) An ability to explain the importance of professional licensure

(n) An ability to understand common failure mechanisms of a component, process, or system and their causes and prevention