University of Wisconsin - Madison
College of Engineering [EGR]
Last Offered: 2015-2016 Fall [1162]
Direct Link to this Syllabus :
http://aefis.wisc.edu/index.cfm/page/CourseAdmin.ViewABET?coursecatalogid=328&pdf=True

1. ISYE 510, Facilities Planning
2. Credits : 3  Contact Hours : 3.3

a. Other Supplemental Materials : None

- Specific Course Information :

a. Brief description of the content of the course (Course Catalog Description) :
   Introduction to plant location theory and analysis of models of plant location; models for determining plant size and time phasing; line balancing models; techniques for investigating conveyor and other material handling problems; and models of plant layout.

b. Pre-requisites or Co-requisites : IE 315, 323, 349 or cons inst
c. This is a Selected Elective course.

- Specific Goals for the Course :

a. Course Outcomes :

1. To gain an understanding and appreciation of the principles and methodologies relevant to the planning and design of "production oriented" facilities. To develop skills and learn modern analytical techniques useful for solving facilities planning problems in such areas as: A. Manufacturing Systems Design; B. Plant Layout; C. Material Handling Systems, Conveyors; D. Cellular Manufacturing Systems. To gain an appreciation of the many qualitative considerations relevant to solving facilities design problems.

- ABET Student Learning Outcomes :
(a) Ability to apply mathematics, science and engineering principles.
(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.
(f) Understanding of professional and ethical responsibility.
(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.

- **Brief List of Topics to be Covered:**