University of Wisconsin - Madison
College of Engineering [EGR]
Last Offered: 2015-2016 Spring [1164]
Direct Link to this Syllabus:

1. I SY E 315, Production Planning and Control
2. Credits: 3  Contact Hours: 3.3
3. Textbook and Materials: OPERATIONS & SUPPLY MANAGEMENT-W/DVD; JACOBS; 12TH; No Year Given

a. Other Supplemental Materials: None

- Specific Course Information:
  a. Brief description of the content of the course (Course Catalog Description):
     Techniques and applications of control concepts in the design of inventory, production, quality, and project-planning systems; use of the computer as a component in such systems.
  b. Pre-requisites or Co-requisites: STAT 311 or MATH 431 (or concurrent registration)
  c. This is a Required course.

- Specific Goals for the Course:

  a. Course Outcomes:

     1. To gain an understanding and appreciation of the fundamental principles and methodologies relevant to planning, design, operation, and control of World-Class Productive systems. To gain an understanding of the role and importance of productivity in the welfare of society, and learn how to increase productivity and quality for competing in today’s global marketplace. To reinforce analytical skills, and build on these skills to further increase student portfolio of analytical tools. To gain some ability to recognize situations in a production system environment that suggest the use of certain quantitative methods to assist in decision-making. To learn how to think about,
approach, analyze, and solve production systems problems using both technology and human skills. To increase knowledge and broaden perspective of the new world in which you contribute your talent and leadership as an Industrial Engineer.

- **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.
  (e) Ability to identify, formulate and solve engineering problems.
  (k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

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

  Operations management, operations and supply strategy, product management, job design and work measurement, M.O.S.T., factor analysis, statistical process control, TQM and six sigma, supply chain strategy, lean manufacturing, aggregate planning, inventory control, material requirements planning, constraint management