ISE 421 QUANTATIVE PRODUCTION PLANNING

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2013 – 2014 Spring Term
Industrial Engineering
Izmir University of Economics
http://homes.ieu.edu.tr/~aornek/ISE421_2013.htm
Course Description

The main objective of this course is to enable students with a mathematical programming background to use the knowledge and tools provided in this course to solve real world production planning problems. The course introduces students to the modelling, formulation and optimization approach to solving problems as MIPs. Classical MPC models and systems, including MRP and more recent APS, are also covered. MIP algorithms, heuristics and quality of these algorithms are discussed. Finally, a classification of production planning models and a procedure to improve the formulation of real-life production planning problems are also provided.
Prerequisite

ISE216 Prerequisite

Useful but not necessary
ISE336 Art of Mathematical Modeling
Textbooks


✓ Lecture Notes: Ömer Benli
http://csulb.edu/~obenli/Research/Notes/Notes.pdf
Papers

Papers (cont..)

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Exams

There will be one midterm and one final examination, which will cover reading assignments, lectures, and classroom discussions. The midterm examination will be announced at least one week in advance, and will occur as close as possible to the date scheduled in the course outline.
Assignments

☐ All reading assignments and homeworks must be completed according to the course schedule, and you must be prepared for discussion of weekly reading topics in class. In addition, you will undertake outside readings of articles and texts relevant to topics being discussed and studied in class. Participation in class and team discussions is part of your grade and this will not work well if you have not kept up with the readings.

☐ Assignments are due at the BEGINNING of the class period on the designated due date. If you miss class on the due date and your paper is not in at the beginning of class, you will receive a zero on the assignment.
Research Paper

- A Term project is required for students working in groups of 4-6. The groups are to be formed and determine a topic asap.

- Each Project Group is required to submit a report and to give a 20-min. presentation at the end of the term covering all aspects of their project. The date and format will be announced in the class.
Grading

- Midterm 25%
- Attendance 10%
- Homworks 15%
- Project 15%
- Final 35%