IE 524  
Planning of Production Systems  
Spring 2018

Instructor: Ali Tamer Ünal, M 4115

Objectives:  
Overview of production systems and planning paradigms. Hierarchical planning, aggregation/disaggregation. Continuous and discrete lot-sizing models and solution methods. Distributed planning and coordination in supply chains.

References:  

Outline:  
• Introduction to production planning systems  
• Aggregate production planning  
  • Linear uncapacitated / capacitated lot sizing models  
  • Formulations  
  • MIP solution procedures  
  • Heuristics  
  • Quadratic models  
• Hierarchical production planning systems  
  • Constructional  
  • Organizational  
• Distributed planning and coordination in supply chains

Grading:  
Homeworks / Quizes / Contribution 20%  
Midterm 25%  
Term Project 20%  

Term project includes an extensive literature survey and/or original research work (theoretical or computational) on a specific planning problem. Each student is asked to submit a written report and make a class presentation.

Final 35%