Course Description

The purpose of this course is to introduce the most widely used deterministic operations research methodologies. The course will start with basic linear programming then move into duality, transportation and assignment problems. Integer programming (cutting plane and branch and bound solution procedures) and network models will also be introduced. Popular OR software will be highlighted and used in assignments.

Course Outline

1. Week Sept.24  Intro to O.R. and LP Modeling
2. Week Sept.29  LP: Graphical Solution Procedure
    LP: Model Formulation
3. Week Oct. 13  LP: Simplex Method
4. Week Oct. 20  LP: Starting Methods
5. Week Oct. 27  LP: Matrix Form of Simplex, Revised Simplex
    LP: Duality
6. Week Nov.03  LP:Dual Simplex
    LP: Sensitivity Analysis
7. Week Nov.10  Midterm ≠ 1
    LP: Sensitivity Analysis
8. Week Nov.17  The Transportation Problem
    The Transshipment Problem
9. Week Nov.24  The Assignment Problem
10. Week Dec.01  Network Problems
11. Week Dec.08  Network Problems
    Midterm ≠ 2
    IP: The Cutting Plane Method
13. Week Dec.22  IP: The Branch and Bound Method
    The Bic Mac Problem

Textbooks

i) Introduction to Operations Research (Ilhan Or, Lecture Notes, 2013)

Eligibility to enter the Final Exam: To be present in at least one midterm and to have at least 35/100 average in midterms and quizzes.

Teaching Assistant and Grader:

TA: .............
Room No: M4110  Tel: ............  e-mail:

Web Page: http://karagoz.ie.boun.edu.tr/moodle/  Enrollment Key: .................

You may reach the course website at this address and register using your username & password

Grading 1st Midterm % 20 - 24  Assignments (Quizzes) % 10 - 15
2nd Midterm % 20 - 24  FINAL % 40 - 47

Time&Room: TTW ThTh 345 56  M2230  M2220  M3100  M2171  M2171