

# ITY512E - OPERATIONS RESEARCH

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<http://ninova.itu.edu.tr/tr/dersler/sosyal-bilimler/5618/ity-512e/>

## Schedule

Day	Date	Topic	
1	11-Jan	Introduction, Basic Concepts, Modeling (Formulating LP)	
2	18-Jan	Modeling (Formulating LP)	
3	25-Jan	Graphical Solution, Sensitivity analysis	HW1
4	1-Feb	Duality, Sensitivity Analysis	
5	8-Feb	Software Packages: LINDO & Open Solver Add-In	
6	15-Feb	Integer Programming (Formulation)	
7	22-Feb	Midterm Exam	
8	1-Mar	Integer Programming (Solution)	
9	8-Mar	Integer Programming (Solution) Software	HW2
10	15-Mar	Case study on LP/IP	HW3
11	22-Mar	Case study on LP/IP	
12	5-Apr	Final EXAM	

**Course objectives**

1. To learn using different mathematical modeling techniques with OR
2. To learn using different methods that are used for numerical decision making
3. To learn finding optimal solutions to problems

Lecture notes - download at  
<http://web.itu.edu.tr/topcuil/ya/MHN502E/lecturenotes.htm>

**Text**

Winston W.L. (2004) "Operations Research: Applications and Algorithms",  
Brooks/Cole – Thomson Learning

Taha H.A. (2003) "Operations Research: An Introduction", Pearson Education Inc.

**Grades** Homework (25%), Classwork (15%), Midterm Exam (20%), Final Exam (40%)

**Attendance** Not-mandatory