

IE 48K Special Topics: Revenue Management, Fall 2015
Department of Industrial Engineering, Boğaziçi University

Hours: Thursday, 15:00-18:00, M2200

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Office Hours: Thursday, 14:00-15:00, **Room:** M4010

COURSE DESCRIPTION

This course is organized to introduce the students to Pricing and Revenue Management by focusing on the relationship between price, demand and supply. The scope of pricing and revenue optimization is to set and update the prices for each combination of product, customer segment, and channel. Main topics covered are segmenting customers according to their willingness-to-pay, allocating limited supply capacity, and customizing pricing offers to each customer segment to satisfy different objectives for the firm.

Most popular applications of revenue management are in the airline and hospitality industries. As the velocity of pricing decisions increase there is also a growing interest for revenue management solutions in the retail, financial services, telecommunications, and software-as-a-service industries. Most of the customers are now able to check competitive prices at any time with their smart devices, and some retail stores have already started to install digital price tags.

The course is expected to enable students to apply their skills acquired in probability, statistics, microeconomics, and mathematical modeling courses in a revenue management setting. At the end of the course, they will understand the challenges in capturing all the complexities of the real world setting, but will appreciate how mathematical analysis and modeling even with simplified assumptions could lead to better pricing decisions.

From an organizational perspective, setting up and deploying a revenue management system requires the contribution of marketing, sales, and finance departments. Therefore, students will be able to see how competing objectives of various business functions are balanced in determining the pricing strategy of the firm under different economic conditions.

TEXTBOOK AND TENTATIVE CASE STUDIES:

Book: Pricing and Revenue Optimization by Robert L. Philips, Stanford University Press, 2005

1. Cambridge Software Corporation
2. American Airlines Inc.: Revenue Management
3. J.C. Penney's Pricing Strategy

TENTATIVE COURSE SCHEDULE

Date	Topic	Book Chapter	Case Assignments	Course Project
October 1 st , 2015	Introduction	1,2		
October 8 th , 2015	Basic Price Optimization	3		Form Teams
October 15 th , 2015	Price Differentiation	4	Cambridge Software	
October 22 nd , 2015	Pricing with Constrained Supply	5		Company Selection
October 29 th , 2015	Republic Day Holiday			
November 5 th , 2015	Revenue Management	6	American Airlines	
November 12 th , 2015	Capacity Allocation	7		
November 19 th , 2015	MIDTERM 1			
November 26 th , 2015	Network Management	8		Report 1: Assesment
December 3 rd , 2015	Overbooking	9		
December 10 th , 2015	Markdown Management	10	J.C. Penney	
December 17 th , 2015	Customized Pricing	11		
December 24 th , 2015	RM and Customer Acceptance	12		Report 2: Suggestions

GRADING

- Midterm: 25%
- Final 35%
- Quiz/Homework: 20%
- Project: 20%