Course number and name	END 473E / Pricing and Revenue Management
Credits, contact hours, categorization of credits	3 credits / 42 hours / Engineering topic
Instructor or course coordinator	İrem UÇAL SARI
Text book and other supplemental materials	• Phillips, R. L. (2005). *Pricing and revenue optimization*. Stanford University Press. • Talluri, K. T., & Van Ryzin, G. J. (2006). *The theory and practice of revenue management*, Springer, 2004

Course information	
Content	Price optimization, Price differentiation, Revenue management, Capacity allocation, Overbooking, Markdown management, Specialized pricing.
Prerequisites	END 312E Engineering Economics, END 331E Operation Research I
Type	Selected elective

Course learning outcomes
Students who pass the course will be able: I. Understand the concepts of price optimization, price differentiation and dynamic pricing II. Apply quantity based revenue management models III. Apply price based revenue management models IV. Use the fundamental operations research methodologies in revenue management V. Apply revenue management models into diverse industries

Student outcomes	Level of contribution
SO1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	High
SO2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Little
SO3. An ability to communicate effectively with a range of audiences.	Little
SO4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	Partial
SO5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	Little
SO6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	Partial
SO7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Partial

Week	Topics	Learning outcome(s)
1	Introduction to pricing and revenue optimization	I
2	Basic Price Optimization	I
3	Price Differentiation	I
4	Pricing with constrained supply	I
5	Revenue management	I- IV
6	Capacity allocation	I, II, IV
7	Capacity allocation	I, II, IV
8	Network revenue management	I-IV
9	Network revenue management	I-IV
10	Overbooking	I-IV
11	Markdown management	I- IV
12	Customized Pricing	I-V
13	Pricing and Revenue Optimization and Customer Acceptance	I-V
14	Pricing and Revenue Optimization and Customer Acceptance	I-V