

**DEPARTMENT of INDUSTRIAL ENGINEERING  
COURSE CATALOGUE FORM**



<b>Course Code:</b> INDE4382				<b>Course Title:</b> Pricing and Revenue Optimization			
<b>Semester</b>	<b>L + R + L</b>	<b>Credits</b>	<b>AKTS</b>	<b>Language</b>	<b>Category</b>	<b>Instructional Methods</b>	<b>Prerequisites</b>
7	3 + 0 + 0	3	6	English	Elective	Lecture	INDE2001
<b>Course Objectives</b>			To teach the fundamentals of revenue and pricing optimization on different application areas; to give information about the difficulties in application of theory.				
<b>Course Content</b>			Introduction to pricing and revenue management concepts and practices. Basic pricing optimization, price differentiation, pricing under limited capacity. Revenue management. Capacity control of single source. Capacity control in networks. Overbooking. Price markdown management. Various cases and articles.				
<b>Course Learning Outcomes</b>			Students, who pass the course satisfactorily: 1. Learns pricing and revenue optimization applications and solution methods. [2] 2. Ability to implement pricing systems as an IE. [2]  [Note: Numbers in brackets are indicating the related program outcomes]				
<b>ISCED Category of the course</b>			52 Engineering				
<b>Textbook</b>			Pricing and Revenue Optimization - R.L. Phillips				
<b>Supplementary Material</b>			-				

**COURSE PLAN**

Week	Topics	Laboratory / Tutorial Work
1	Introduction, strategic pricing, psychology of pricing, financial analysis	-
2	Basic pricing optimization	-
3	Basic pricing optimization	LAB work
4	Price differentiation	-
5	Pricing under limited capacity	-
6	Revenue Management	-
7	Capacity differentiation	-
8	Capacity differentiation	LAB work
9	Network management	-
10	Overbooking	-
11	Overbooking	-
12	Markdown optimization	LAB work
13	Markdown optimization	-
14	Customer-specific pricing	-

**COURSE ASSESSMENT SYSTEM**

	Activities	Contribution (%)
<b>Semester Activities</b>	<b>Semester Written Exams</b>	50
	<b>Homework</b>	20
	<b>Reports</b>	-
	<b>Labs</b>	-
	<b>Seminars</b>	-
	<b>Presentations</b>	-
	<b>Term Project</b>	-
	<b>Other (attendance, field trip etc.)</b>	-
<b>FINAL EXAM</b>		30
<b>Total</b>		100

**CONTRIBUTION of the COURSE on INDUSTRIAL ENGINEERING PROGRAM OUTCOMES**

	<b>Program Outcomes</b>	Low	High
1	Adequate knowledge in mathematics, science and subjects pertaining to Industrial Engineering; ability to use theoretical and applied knowledge in these areas in complex engineering problems.		
2	Ability to identify, formulate, and solve complex Industrial Engineering problems; ability to select and apply proper analysis and modeling methods for this purpose.		<b>X</b>
3	Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose.		
4	Ability to devise, select, and use modern techniques and tools needed for analyzing and solving problems encountered in engineering practice; ability to employ information technologies effectively.		
5	Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex engineering problems or discipline specific research questions.		
6	Ability to work efficiently individually and in intra-disciplinary / multi-disciplinary teams.		
7	Knowledge of Turkish and English languages; ability to communicate effectively orally, inscriptive and visually by using these languages (via business methods such as reports, presentations and instructions).		
8	Recognition of the need for lifelong learning; ability to access information, to follow developments in science and technology, and to continue to educate him/herself.		
9	Consciousness to behave according to ethical principles and professional and ethical responsibility; knowledge on standards used in engineering practice.		
10	Knowledge about business life practices (management activities such as project, risk, change and quality etc.); awareness in entrepreneurship, innovation; knowledge about sustainable development.		
11	Knowledge about the global and social effects of engineering practices on health, environment, economics and safety, and contemporary issues of the century reflected into the field of engineering; awareness of the legal consequences of engineering solutions.		

**ECTS - WORK LOAD TABLE**

<b>COURSE ACTIVITIES</b>	<b>Quantity</b>	<b>Time (hr)</b>	<b>Work Load (hr)</b>
Lectures	14	3	42
Final Exam (Preparation included)	1	20	20
Semester Written Exams (Preparation included)	2	15	30
Out of class study time	12	3	36
Homework	5	3	15
Reports	-	-	-
Labs	-	-	-
Seminar	-	-	-
Presentations	-	-	-
Term Project	-	-	-
<b>Total Load (hr)</b>			143
<b>ECTS Credits of the course (Total Work Load / 25)</b>			6

Revizyon/Tarih 5/02/2020	Koordinatör / HAZIRLAYAN Çağlar Aksezer	ONAYLAYAN Çağlar Aksezer
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