

SYSTEMS ANALYSIS AND ENGINEERING

1	Course Title:	SYSTEMS ANALYSIS AND ENGINEERING	
2	Course Code:	END3061	
3	Type of Course:	Compulsory	
4	Level of Course:	First Cycle	
5	Year of Study:	3	
6	Semester:	5	
7	ECTS Credits Allocated:	3.00	
8	Theoretical (hour/week):	2.00	
9	Practice (hour/week):	0.00	
10	Laboratory (hour/week):	0	
11	Prerequisites:	-	
12	Language:	Turkish	
13	Mode of Delivery:	Face to face	
14	Course Coordinator:	Doç. Dr. ASLI AKSOY	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	tasliaksoy@uludag.edu.tr Tel: 0224 294 2078 Endüstri Mühendisliği Bölüm, Mühendislik Mimarlık Fakültesi Uludağ Üniversitesi, Görükle, Bursa	
17	Website:	http://endustri.uludag.edu.tr/~orbak/END3061.html	
18	Objective of the Course:	To provide students the systematic methods that generate effective engineering solutions and to introduce the students the systems engineering approach that is used to develop new products or processes.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Understand the principles and tools of systems analysis and design.
		2	Summarize the characteristics of the systems engineering approach.
		3	Analyze the causes of a systems failure.
		4	Solve a wide range of problems related to the analysis, design and construction of information systems.
		5	Plan and undertake a major group project, prepare and deliver coherent and structured verbal and written technical reports.
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21	Course Content:		
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Week	Theoretical	Practice	

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22	Textbooks, References and/or Other Materials:	<p>Blanchard, B.S., and W.J. Fabrycky, "Systems Engineering and Analysis", 3rd edition, Prentice Hall, 1998.</p> <p>Daellenbach, H.G., and McNickle, D.C., 'Management Science: Decision making through systems thinking', Palgrave Macmillan, 2005.</p> <p>Ribbens, J.A., "Simultaneous Engineering for New Product Development. Manufacturing Applications", Wiley, 2000.</p>																																																												
Activities		<table> <tr> <th>Number</th><th>Duration (hour)</th><th>Total Work Load (hour)</th></tr> <tr> <td>Theoretical</td><td>Management", McGraw-Hill, 1983.</td><td>28.00</td></tr> <tr> <td>Practicals/Labs</td><td>0</td><td>0.00</td></tr> <tr> <td>Self study and preparation</td><td>Hazelrigg, G.A., "Systems Engineering: An Approach to Information Based Design", Prentice Hall, 1996.</td><td>3.00</td></tr> <tr> <td>Homeworks</td><td>0</td><td>0.00</td></tr> <tr> <td>Projects</td><td>Prentice Hall, 2002.</td><td>18.00</td></tr> <tr> <td>Field Studies</td><td>0</td><td>0.00</td></tr> <tr> <td>Midterm exams</td><td>1</td><td>2.00</td></tr> <tr> <td>Others</td><td>0</td><td>0.00</td></tr> <tr> <td>Midterm Exam</td><td>1</td><td>2.00</td></tr> <tr> <td>Final Exam</td><td>1</td><td>2.00</td></tr> <tr> <td>Total Work Load</td><td></td><td>89.00</td></tr> <tr> <td>Homework project</td><td>1</td><td>2.97</td></tr> <tr> <td colspan="2">ECTS Credit of the Course</td><td>3.00</td></tr> <tr> <td>Total</td><td>3</td><td>100.00</td></tr> <tr> <td colspan="2">Contribution of Term (Year) Learning Activities to Success Grade</td><td>40.00</td></tr> <tr> <td colspan="2">Contribution of Final Exam to Success Grade</td><td>60.00</td></tr> <tr> <td colspan="2">Total</td><td>100.00</td></tr> <tr> <td colspan="2">Measurement and Evaluation Techniques Used in the Course</td><td></td></tr> <tr> <td>24</td><td colspan="2">ECTS / WORK LOAD TABLE</td></tr> </table>	Number	Duration (hour)	Total Work Load (hour)	Theoretical	Management", McGraw-Hill, 1983.	28.00	Practicals/Labs	0	0.00	Self study and preparation	Hazelrigg, G.A., "Systems Engineering: An Approach to Information Based Design", Prentice Hall, 1996.	3.00	Homeworks	0	0.00	Projects	Prentice Hall, 2002.	18.00	Field Studies	0	0.00	Midterm exams	1	2.00	Others	0	0.00	Midterm Exam	1	2.00	Final Exam	1	2.00	Total Work Load		89.00	Homework project	1	2.97	ECTS Credit of the Course		3.00	Total	3	100.00	Contribution of Term (Year) Learning Activities to Success Grade		40.00	Contribution of Final Exam to Success Grade		60.00	Total		100.00	Measurement and Evaluation Techniques Used in the Course			24	ECTS / WORK LOAD TABLE	
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25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	5	0	4	0	0	0	5	0	0	0	5	0	0	0	0	0
ÖK2	5	5	4	5	3	0	0	0	5	0	0	5	0	4	5	0
ÖK3	0	5	5	0	0	0	5	5	4	5	0	0	0	0	0	0
ÖK4	0	0	0	0	0	0	0	0	5	5	0	0	5	0	0	0
ÖK5	0	0	5	4	5	5	4	5	5	0	0	0	5	0	5	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			