

UNDERGRADUATE CURRICULUM DETAILS

Course Title: Environmental Sustainability				Code : USD2XXX		Name of the Programme: Environmental Engineering		
Education and Teaching Methods							Credits	
Lecture	Application	Laboratuary	Project/ Field Study	Hw.	Other	Total	Credit	ECTS
28	-	-	30	42	50	150	2	3
Semester		Springer		Language		Turkish		
Course Type	Basic Scientific ☐	Scientific ☐	Technical Elective ☐		Univ. Elective ☒			
Course Contents	Environmental effects resulting from industrial productions and examination of water, soil and air pollution							
Course Objectives	Environmental effects resulting from industrial productions and examination of water, soil and air pollution							
Textbook and for References	Yadong Yu ve diğ, (2013), Ecological Indicators 24: 177-184 Anders Bjørn & Michael Zwicky Hauschild, Int J Life Cycle Assess, LIFE CYCLE SUSTAINABILITY ASSESSMENT, DOI 10.1007/s11367-015-0899-2 Kicherer A, Schaltegger S, Tscho-chohei H, Ferreira Pozo B (2007), Eco-Efficiency, Combining Life Cycle Assessment and Life Cycle Costs via Normalization. Int J LCA 12 (7) 537-543							
ASSESSMENT CRITERIA								
Theoretical Courses				Project Course and Graduation Study				
	If any, mark as (X)	Percent (%)		If any, mark as (X)	Percent (%)			
Midterm Exams	X	40	Midterm Exams					
Quizzes			Midterm Controls					
Homeworks			Term Paper					
Term Paper (Projects, reports,)			Oral Examination					
Laboratory Work			Final Exam					
Final Exam	X	60	Other					
Other								
Week	Subjects							
1	Industries and waste generation Productivity types, eco-efficiency theory, development, recent developments, Data compilation for environmental impact categories (facility-specific, worldbank, tuik, eia, eurostat) In industrial production (resource use: energy) In industrial production - (resource use: raw material, water and land use) In industrial production - (air emissions: potential for acid formation and ozone depletion) In industrial production - (air emissions: global warming) In industrial production and as Ketel - (water emissions: emissions to surface waters) In industrial production and urban - (solid waste generation) Environmental impact categories - (toxicity) Environmental impact categories - normalization references, normal environmental impacts Weighting of environmental impact categories with analytic hierarchy process Normalization, comparison of environmental impact categories with normalization technique, Normalize cost analysis							
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
Instructors								
e-mail								
Website								