

Course Title-Course Code: 5061325 ADVANCED ECOLOGY						Name of The Programme: Enstitute of Science and Technology / Environmental Sciences					
Semester	Teaching Methods							Credits			
	Lecture	Recite	Lab	Project Res.		Term Paper	Other	Total	Credit	ETSC Credit	
Spring	42		-			100	46	188	3	7,5	
Language	Turkish										
Compulsory/ Elective	Elective										
Prerequisites	None										
Course contents	<p>Scientific method and ecology. Feedback mechanisms and natural systems. Important concepts in Ecology.</p> <p>Evolution and ecology. Biodiversity and importance. The structure and functions of ecosystems. Food chain and food pyramid. Energy and nutrients flow through living systems. Ecosystems energy budgets and productivity. Factors limiting the distribution of living things (temperature, moisture, light and other physical-chemical factors). The effects of physical-chemical factors (light, temperature, humidity, biogenetic nutrients, soil, fire) on ecological systems. Population ecology (Factors affecting population growth. Population growth patterns. Interrelations of species. Competition). Community ecology and interrelations with other species (commensalism, mutualism, predasyon, parazitism, dominans and competition). Distribution, Dispersal and Habitat selection.</p>										
Course objectives	Learning the structure and function of the natural systems										
Learning outcomes and competences	To reach the level of evaluating natural systems and to have the ability of implementing ecological studies										
Textbook and /or References	<p>ODUM, E. P. ve BARRETT, G. W., 2008. "Ekolojinin Temel İlkeleri", Palme Yayınevi, Ankara</p> <p>MOLLES, M.C. Jr, 1999 "Ecology-Concepts and Applications". WCB/ McGraw-Hill Companies, Inc.</p> <p>KREBS, J. CHARLES, 2001. "Ecology". Fifth edition. Benjamin Cummings, an imprint of Addison Wesley Longman, Inc.</p> <p>ŞİŞLİ, M.N, 1996. "Ekoloji", Yeni Fersa Matbaası, Ankara.</p> <p>CAMPBELL, N.A., 1996. "Biology". Fourth Edition. The Benjamin / Cummings Publishing Company, Inc. Canada.</p> <p>MADER, S.S., 1996. "Biology". Fifth Edition, Times Mirror Higher Education Group, Inc., U.S.A.</p> <p>BERKES, F., 1985 "Ekoloji ve Çevre Bilimleri" Türkiye Çevre Sorunları Vakfı Yayınları, Ankara.</p>										
Assesment criteria								If any marks (X) as	%		
	<i>Midterm Exams</i>							X		30	
	<i>Qizzes</i>										
	<i>Homeworks</i>										
	<i>Projects</i>										
	<i>Term Paper</i>							X		20	
	<i>Laboratory Work</i>										
	<i>Other</i>							X		10	
<i>Final Exam</i>							X		40		
Instructors	Ass. Prof. Dr. Feriha YILDIRIM ferihayildirim@gmail.com										
WEEK	SUBJECT										
1	Scientific method and ecology. Feedback mechanisms and natural systems.										
2	Important concepts in Ecology. Evolution and ecology. Biodiversity and importance.										
3	The structure and functions of ecosystems. Food chain and food pyramid.										

4	Energy and nutrients flow through living systems
5	Ecosystems energy budgets and productivity.
6	The effects of physical-chemical factors on ecological systems.: light, temperature
7	The effects of physical-chemical factors : humidity, biogenetic nutrients, soil, fire
8	MIDTERM EXAM
9	Population ecology : Factors affecting population growth
10	Population growth patterns.
11	Interrelations of species. Competition
12	Community ecology and interrelations with other species : Kommensalism, mutualism, predasyon, parazitism, dominans and competition.
13	Distribution, Dispersal and Habitat selection.
14	FINAL EXAM