

# ENVIRONMENTAL BIOLOGY

1	Course Title:	ENVIRONMENTAL BIOLOGY
2	Course Code:	BYL0502
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. GÜRCAN GÜLERYÜZ
15	Course Lecturers:	
16	Contact information of the Course Coordinator:	Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Görükle kampüsü, 16059 Bursa 0224 2941799, e-posta: gurcan@uludag.edu.tr
17	Website:	
18	Objective of the Course:	This course introduces environmental issues from a biological point of view. This goal explains with the relationships between human beings and environment, the exposed on environment of human, the influence of human activity on resource use, the effective mechanisms of the main pollutants such as pesticides and surface active agents, the major nutrient cycles such as C,N,S and human effects on these cycles, the biological accumulation and effects, the usage of bio-systems across pollutants in environment.
19	Contribution of the Course to Professional Development:	Contribution of the biology / ecology discipline in the determination, prevention and elimination of environmental problems
20	Learning Outcomes:	
	1	Explains the environment and environmental problems.
	2	Relating the human and environment.
	3	Explains the human effects on nature.
	4	Explains the biogeochemical cycles and effects of human on these cycles.
	5	Explains the environmental pollution and role of human on environmental pollution.
	6	Explains the bioaccumulation.
	7	Explains the effects of erosion on environment.
	8	Explains the methods relating to ecological restoration.
	9	
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21	Course Content:	
	Course Content:	
Week	Theoretical	Practice

1	Intoduction, Concept of the Environmental Biology.Environment term and Environmental Problems.		
2	The relationships between human and environment.		
3	The exposed on environment of human: Landscape, Soil, Aquatic environment, Vegetation, Anima lSpecies and their distribution		
4	The exposed on environment of human: Landscape, Soil, Aquatic environment, Vegetation, Animal Species and their distribution		
5	Biogeochemical Cycles; Carbon Cycle and Global Climatic Change; Oxygen cycle and Ozone		
6	Biogeochemical Cycles; Nitrogen Cycle and Forest damages (Acid Rainfalls)		
7	Repeating courses and midterm exam		
8	Biogeochemical Cycles; Phosphorus Cycle and Eutrophication, Sulfur Cycle		
9	Biological Accumulation		
10	Environmental Pollution; Chemical (Heavy Metals, Pesticides, Synthetic Detergents, Atmospheric gases, Oil pollution)		
11	Environmental Pollution; Physical Pollution, Biological pollution (allergic pollens, spores, Epidemic agent), Radioactive Pollution, Thermal Pollution		
12	Erosion Ecology		
13	The usage of bio-systems across pollutants in environment.		
14	Restoration ecology, Phytoremediation		
22	Textbooks, References and/or Other Materials:	Çevre Biyolojisi ders notları, GÜLERYÜZ G Türkiye'nin Çevre sorunları, KollektifÇ alışma, Türkiye çevre SorunlarıVakfı, 1991 Ankara Ekoloji, ÇevreBiyolojisi, KOCATAŞ A., EgeÜn. Matbaası, İzmir, 1992 Elements of Ecology, Smith RL., Harper Collins Publ., Third Ed. NY 1992 Air Pollution and Forests, interaction between air contaminants and forest ecosystems, Smith, WH., Second Edition, Springer-Verlag, 1990, New York Canlılar ve Çevre, Öztürk MA veTürkan İ. E.Ü. Ofsetbasımevi, Bornova, İzmir, 1989 Çevre Kirliliği ve Ekolojik Etkileri, AkmanY., Düzenli A ve Geven F. Ankara, 1996 Ekoloji'nin Temel İlkeleri. Çeviri Editörü: K. ISIK. Palme Yayıncılık, Ankara, ss: 598 + XXII. (Çevirisi yapılan original kitap: E.P. ODUM and G.W. BARRETT. 2005. Fundamentals of Ecology, Thomson Learning Brooks/Cole, Belmont, CA, USA, 624 pp).	
23	Assesment		
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT
Midterm Exam		1	40.00
Quiz		0	0.00
Home work-project		0	0.00
Final Exam		1	60.00

Total	2	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	Measurement and evaluation are performed according to the Rules & Regulations of Bursa Uludağ University on Undergraduate Education.	
<b>24</b>	<b>ECTS / WORK LOAD TABLE</b>	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	14	4.00	56.00
Homeworks	2	10.00	20.00
Projects	1	8.00	8.00
Field Studies	0	0.00	0.00
Midterm exams	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	14.00	14.00
Total Work Load			160.00
Total work load/ 30 hr			5.00
ECTS Credit of the Course			5.00

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	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK2	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK3	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK4	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK5	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK6	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK7	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
ÖK8	0	3	0	0	3	0	1	0	0	0	0	0	0	0	0	0
LO: Learning Objectives    PQ: Program Qualifications																
Contrib ution Level:	1 very low		2 low		3 Medium		4 High		5 Very High							