

BIOLOGY OF ALGAE

1	Course Title:	BIOLOGY OF ALGAE
2	Course Code:	BYL4052
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	8
7	ECTS Credits Allocated:	4.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	2
11	Prerequisites:	none
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ŞÜKRAN DERE
15	Course Lecturers:	Yrd.Doç.Dr Didem KARACAOĞLU
16	Contact information of the Course Coordinator:	Prof. Dr. Şükran DERE Fen-Edebiyat Fakültesi, Biyoloji Bölümü, Görükle Kampüsü, 16059 Bursa 0(224)2941786 e-posta: sdere@uludag.edu.tr
17	Website:	
18	Objective of the Course:	The aim of the course is to teach importance and working area of Algal Biology. The goals are to teach morphological structure of algal groups, reproductions and life cycles of algae, cell structure, algal groups which lives in different habitats (freshwater, marine, brackish, soil flora, snow and ice algal flora, spring water algae), relationships among algae and ecological factors, basic principles of algal physiology, economic aspects of the algae and classification criterions.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	
	1	Describes morphologic structure of algae.
	2	Explains separation and life periods of algae.
	3	Explains cytologic properties of algal cell.
	4	Compares differences between prokaryotic and eukaryotic algal cell.
	5	Assesses about composition of alga groups living at different habitat (freshwater algae, marine algae, soil algae, ..)
	6	Analyzes basis structural character which are used classification of algae.
	7	Explains that algal groups have different pigment contents and display variety according to energy needs.
	8	Explains that algae grow at different medium environment.
	9	Explains alga groups which have economic significance and that alga groups are used at different applications.
	10	Evaluates about information of fossil algae.

21	Course Content:	
	Course Content:	
Week	Theoretical	Practice
1	Morphology of algae	Entrance
2	Separation and life periods of algae	Collection of alg samples from land, diagnosis and be evaluated methods.!
3	Cytology and genetic properties of algae.	Investigation of alg samples: Cyanobacteria
4	Alga of fresh water and ecology of them	Investigation of alg samples: Euglenophyta and Pyrrophyta
5	Alga of marine and ecology of them	Investigation of alg samples: Bacillariophyta
6	Algae which live specific system	Investigation of alg samples: Bacillariophyta
7	Midterm exam,answer of exam questions and general discussion	Midterm exam,answer of exam questions and general discussion
8	Culture of algae	Investigation of alg samples: Bacillariophyta
9	Algae's pigment and energy source	Investigation of alg samples: Chlorophyta
10	Relationship of energy	Investigation of alg samples: Chlorophyta
11	Rythm and acts at algae.	Investigation of alg samples: Chlorophyta
12	Fossil algae	Investigation of alg samples: Phaeophyta
13	Economic significance of algae	Investigation of alg samples: Rhodophyta
14	Classification of algae	Algae of soil

22	Textbooks, References and/or Other		F. F. ROUNDT The Biology of the Algae Edward Arnold		
Activites			Number	Duration (hour)	Total Work Load (hour)
Theoretical			14	1.00	14.00
Practicals/Labs			14	2.00	28.00
Self study and preperation			14	3.00	42.00
Homeworks			0	0.00	0.00
Projects			0	0.00	0.00
Field Studies			0	0.00	0.00
Midterm exams			0	16.00	16.00
Others			0	0.00	0.00
Final Exams			1	20.00	20.00
Total Work Load					120.00
Contribution of Term (Year) Learning Activities to Total work load/ 30 hr			40.00		4.00
Success Grade					
ECTS Credit of the Course					4.00
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	3	0	3	0	0	0	0	0	3	3	3	4	0	0	0	0
ÖK2	0	0	3	0	0	3	0	0	3	0	4	3	0	0	0	0

ÖK3	0	0	3	2	0	2	3	0	3	3	4	4	0	0	0	0
ÖK4	5	0	3	3	0	3	4	0	3	3	4	4	0	0	0	0
ÖK5	3	0	3	3	0	4	4	0	3	3	4	4	0	0	0	0
ÖK6	4	0	3	4	0	3	4	0	3	5	4	4	0	0	0	0
ÖK7	0	0	3	3	0	3	4	0	3	4	4	4	0	0	0	0
ÖK8	0	0	3	0	0	3	3	0	3	3	4	4	0	0	0	0
ÖK9	3	0	3	3	0	4	3	0	3	5	4	4	0	0	0	0
ÖK10	4	0	3	4	0	3	4	3	4	5	4	4	0	0	0	0
LO: Learning Objectives PQ: Program Qualifications																
Contribution Level:	1 very low			2 low			3 Medium			4 High			5 Very High			