

LIMNOLOGICAL ANALYSIS

1	Course Title:	LIMNOLOGICAL ANALYSIS	
2	Course Code:	BIO5303	
3	Type of Course:	Optional	
4	Level of Course:	Second Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
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:	Doç. Dr. NURHAYAT DALKIRAN	
15	Course Lecturers:		
16	Contact information of the Course Coordinator:	sdere@uludag.edu.tr 0 224 294 17 86 Uludağ Üniversitesi, Fen-Edebiyat Fakültesi, Biyoloji Bölümü Nilüfer BURSA	
17	Website:		
18	Objective of the Course:	The aim of the course is to explain basic concepts of limnological research methods. The goal is to provide applicable level of knowledge of basic research methods in limnology.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Use standard limnological techniques to sample physical, chemical and biological parameters in the field
		2	Use standard limnological techniques for identifying and counting common aquatic organisms
		3	Explain how physical, chemical and biological properties are inter-related in lakes and streams
		4	To be able to give an oral presentation on limnological data, as a scientific poster
		5	To be able to do independent field and laboratory work
		6	To be able to do independent check and processing of scientific literature
		7	To be able to do independent writing of minor scientific papers
		8	Use various information technology tools to analyze environmental data
		9	
		10	
21	Course Content:		
		Course Content:	
Week	Theoretical	Practice	

1	Lake basin and physical characteristics of lake	
2	Morphology and flow in streams	
3	Dissolved oxygen and determination methods	
4	Chemical characteristics of fresh water: Inorganic nutrients (Nitrogen, phosphorus and other nutrients)	
5	Chemical characteristics of fresh water: Inorganic carbon complex (alkalinity, acidity, pH, hardness)	
6	Chemical characteristics of fresh water: Organic matter	
7	Midterm exam Exam answer of exam question and general discussion	
8	Composition and biomass of planktonic organisms	
9	Collection and enumeration of planktonic organisms	
10	Limnological methods at periphyton communities	
11	Primary productivity of phytoplankton	
12	Bentic fauna of lakes and streams	
13	Recent literatures related to limnological analysis	
14	Recent literatures related to limnological analysis	
22	Textbooks, References and/or Other Materials:	Robert G. WETZEL, Gene E. LIKENS. Limnological Analyses. Third Edition. Springer-Verlag. 429 p.
23	Assesment	
TERM LEARNING ACTIVITIES		NUMBER
		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		
24	ECTS / WORK LOAD TABLE	

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	5.00	70.00
Homeworks	4	10.00	40.00
Projects	1	10.00	10.00
Field Studies	1	8.00	8.00
Midterm exams	1	10.00	10.00
Others	0	0.00	0.00
Final Exams	1	5.00	5.00
Total Work Load			185.00
Total work load/ 30 hr			6.17
ECTS Credit of the Course			6.00

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