

ICHTHYOLOGY

1	Course Title:	ICHTHYOLOGY
2	Course Code:	BYL4033
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	4
6	Semester:	7
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. Hikmet Sami Yıldırımhan
15	Course Lecturers:	Prof. Dr. Hikmet Sami YILDIRIMHAN
16	Contact information of the Course Coordinator:	Uludağ Üniversitesi Fen-Edebiyat Fakültesi Biyoloji Bölümü Görükle Kampüsü, Nilüfer/BURSA 16059 e-posta: yhikmet@uludag.edu.tr Telefon: 0 224 294 17 90 Uludag University Faculty of Arts and Science Department of Biology Gorukle Campus, Nilufer/BURSA 16059 e-mail: yhikmet@uludag.edu.tr Phone: 0 224 294 17 90
17	Website:	
18	Objective of the Course:	To teach the students details of systematic and some techniques used in biology. To give lecture and to do practical studies to the students on macroscopic and microscopic features of the fish. Morphological features of jawless, cartilaginous and bony fishes, body shapes, fins, scales, skeleton systems, muscles, digestive system, respiration system, nervous system, endocrine system, sense and light organs. The habitat of fish, reproduction in fish, growth, diet, adaptation and migration.
19	Contribution of the Course to Professional Development:	To teach the students details of systematic and some techniques used in biology. To give lecture and to do practical studies to the students on macroscopic and microscopic features of the fish. Morphological features of jawless, cartilaginous and bony fishes, body shapes, fins, scales, skeleton systems, muscles, digestive system, respiration system, nervous system, endocrine system, sense and light organs. The habitat of fish, reproduction in fish, growth, diet, adaptation and migration.
20	Learning Outcomes:	
	1	The students learn characteristics of systematic.
	2	They learn fish situation among other animals.
	3	They learn fishes which distributed in the world especially in Turkey.
	4	They learn detail knowledges as to basic characteristics of fishes.
	5	They learn some methods which are used for biology.
	6	They learn knowledges about classification of fishes.

	7	Taxonomic, ecologic and geographic distrubution		
	8	They describe basic concepts about ichthyology.		
	9	They determine adaptations to enviroment in fish.		
	10			
21	Course Content:			
	Course Content:			
Week	Theoretical	Practice		
1	The students learn style of the course programme. The students are iluminated about midterm and final exams. Adaptations to water life, fish morphology.			
2	Giving detail knowledges about morphologic, systematic characteristics of fishes. Mouth, nasal organ, eye in fishes.			
3	Giving knowledges about fishes in our country and world. Fins and caudal fin types in fishes.			
4	The types of dorsal and anal fins.			
5	The types of paired and anal fins.			
6	Skin and scale types of fish.			
7	Colors, skeleton and axis skeloton in fishes.			
8	Skeleton of organs, muscle system.			
9	Midterm exam and subject repetition			
Activites		Number	Duration (hour)	Total Work Load (hour)
11	Digestive system, swim bladder, respiratory system.	14	2.00	28.00
Practicals/Labs		14	2.00	28.00
Self study and preperation		3	5.00	15.00
12	Reproduction hormones, reproduction	3	5.00	15.00
Homeworks		3	5.00	15.00
14	Social behaviours in fishes, larval	1	15.00	15.00
Field Studies		0	0.00	0.00
22	Midterm exams	2	2.00	4.00
Books, References and/or Other		Zoologie , publiee sous la direction de M. Albert OBBE		
Others		1	15.00	15.00
Final Exams		and notee par ed. Le danois, R. NORMAN	2.00	2.00
Total Work Load				120.00
Total work load/ 30 hr		Marine life , Burke London, Werner de HAS	3.00	3.00
ECTS Credit of the Course				4.00
		Publishers, Scott F. GILBERT Arıncı, K. ve Elhan, A. 1983. Anatomi Terimleri Klavuzu. 5. baskı, Hacettepe Taş Kitapçılık Ltd. Şti., 148 s. Baran, İ. ve Timur, M. 1983. Ichthyologie; Balık Bilimi. Anakara Üniv. Basımevi, Ankara, 174 s. Çelikkale, M.S. 1986. Balık Biyolojisi. Karadeniz Üniversitesi Sürmene Deniz Bilimleri ve Teknolojisi Yüksek Okulu. Genel Yayın No:101, Yüksek Okul Yayın No: 1, Trabzon, 387 s. Demir. N. 2006. İhtiyoloji. (Ed., Karataş, M.), Nobel Yayın Dağıtım, Ankara, 423 s. Geldiay, R. ve Balık, S. 1999. Türkiye Tatlısu Balıkları. 3. baskı, Ege Üniversitesi Basımevi, 532 s.		
23	Assesment			
TERM LEARNING ACTIVITIES		NUMBE R	WEIGHT	

Midterm Exam	1	25.00
Quiz	1	15.00
Home work-project	0	0.00
Final Exam	1	60.00
Total	3	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	The writing examination	
24	ECTS / WORK LOAD TABLE	

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	4	1	4	5	3	5	4	5	3	4	5	5	0	0	0	0
ÖK2	3	2	4	5	3	5	4	5	4	4	5	5	0	0	0	0
ÖK3	5	1	4	5	2	5	4	4	3	5	5	5	0	0	0	0
ÖK4	4	3	5	5	3	4	4	4	4	5	5	5	0	0	0	0
ÖK5	5	1	5	5	3	5	4	4	3	4	5	5	0	0	0	0
ÖK6	5	2	5	5	3	5	4	5	5	5	5	5	0	0	0	0
ÖK7	4	3	4	5	3	5	4	5	5	5	5	5	0	0	0	0
ÖK8	5	3	4	5	3	4	4	5	4	5	5	5	0	0	0	0
ÖK9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ÖK10	0	0	0	0	0	0	0	0	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			