ORGANIZATION OF THE NERVOUS SYSTEM AND EVOLUTION

1	Course Title:	ORGANIZATION OF THE NERVOUS SYSTEM AND EVOLUTION	
2	Course Code:	BIO6516	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	2	
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:	Prof. Dr. SiBEL TAŞ	
15	Course Lecturers:	Prof. Dr. SIBEL TAŞ	
16	Contact information of the Course Coordinator:	Prof. Dr. Sibel TAŞ Uludağ Üniversitesi, Fen-Edebiyat Fakültesi, Biyoloji Bölümü e-posta: smeral@uludag.edu.tr Telefon: 0 (224) 294 1795 and Science, Department of Biology e-mail: smeral@uludag.edu.tr Phone: 0 (224) 294 1795	
17	Website:		
18	Objective of the Course:	Receiving stimuli from Invertebrata and mechanisms which respond them, comparative investigation of the organization and functions of the nervous system of Vertebrata, explanation of the functions of neurotransmitters.	
19	Contribution of the Course to Professional Development:	By learning the importance of the nervous system in living things, he / she can make a holistic evaluation and plan a research project.	
20	Learning Outcomes:		
		1	To describe nervous system Invertebrata
		2	To describe the structural and functional organization of the nervous system
		3	To know the structure and functions of the spinal cord and the brain
		4	To describe characteristics, components and functions of the central nervous system
		5	To describe characteristics components and functions of the peripheral nervous system
		6	To describe characteristics, components and functions of the autonomic nervous system
		7	To describe chemical messenger molecules of the nervous system, including classical and non-classical neurotransmitters
		8	To describe types of synapses and their functions
		9	
		10	
21	Course Content:		
	Course Content:		

Week	Theoretical	Practice
1	Warning mechanism invertebrata	
2	Basic functions of synapses, transmitter substances	
3	Sensory receptors	
4	Somatic senses –situation and touch senses	
5	Somatic senses -pain and temperature senses	
6	Neurophysiology of vision	
7	Hearing and chemical senses	
8	The motor functions of the spinal cord	
9	The motor functions-cortex and brainstem	
10	Cerebellum, basal ganglia	
11	Cerebral cortex, learning and memory	
12	The limbic system and hypothalamus	
13	Sleep and dream	
14	Autonomic nervous system	

22	Textbooks, References and/or Other Materials:	Medical Physiology; Arthur C Guyton and John E Hall, 2010 MedicalPhysiology; William F Ganong, 2010 Human anatomy and Physiology; Robert Carola, John P Harley, Charles R Noback, 2002 Biological Science; I II; William T. Keeton, James L. Gould

Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical	**R**	14	3.00	42.00
Practicals/Labs		0	0.00	0.00
Quiz	0	0.00		
Self-study and preperation		14	3.00	42.00
Homeworks		2	15.00	30.00
Final Exam	1	100.00		
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Contribution of Term (Year) Learning Activities to Success Grade	0.00			
Midterm exams		0	0.00	0.00
Others		0	0.00	0.00
Contribution of Final Exam to Success Grade	100.00			
Final Exams		1	66.00	66.00
Total Work Load				180.00
Total work load / 30 H				6.00
Measurement and Evaluation Techniques Used in the Course	The system of relative evaluation is applied.			
ECTS Credit of the Course				6.00

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	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK2	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK3	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK4	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0

ÖK5	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK6	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK7	3	1	1	5	5	5	4	3	5	0	0	0	0	0	0	0
ÖK8	3	1	1	5	5	5	4	3	5	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**