CELLULAR BASIS OF LEARNING AND MEMORY

1	Course Title:	CELLULAR BASIS OF LEARNING AND MEMORY
2	Course Code:	TFZ6010
3	Type of Course:	Optional
4	Level of Course:	Third Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	3.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	-
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. TÜLİN ALKAN
15	Course Lecturers:	-
16	Contact information of the Course Coordinator:	talkan@uludag.edu.tr 2954016 Uludağ Üniversitesi Tıp Fakültesi Fizyoloji Anabilim Dalı 16059
17	Website:	
18	Objective of the Course:	The objective of the course is to teach the students the mechanism of the learning and memory and the relations between various neurochemical mechanisms.
19	Contribution of the Course to Professional Development:	
20	Learning Outcomes:	

	1	To describe basic forms of learning perceptual learning.
	2	To compare relationship between different brain connections responsible for learning and memory.
	3	To eloborate basic principles of neurochemical mechanisms of memory stages.
	4	To analyse experimental design about learning and memory
	5	
	6	
	7	
	8	
	9	
	10	

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Higher functions of the nervous system	
2	Molecular basis of memory	

3	Biochemical basis of learning	
4	Animal studies help to understand memory	
5	Encoding Explicit memory	
6	Encoding Implicit memory	
7	Cellular mechanisms of habitaution and sensitization	
8	Cellular mechanisms of Classical conditioning and Operant conditioning	
9	Cellular mechanisms of working memory	
10	Cerebral dominance and physiology of Language	
11	Intercortical transfer of memory	
12	Long-term potentiation and long-term depression	
13	Synaptic plastisity	

Activites		Number	Duration (hour)	Total Work Load (hour)
Theoretical		14	1.00	14.00
Practicals/Labs		0	0.00	0.00
Self study and preperation		0	0.00	0.00
Homeworks		1	20.00	20.00
Projects		0	0.00	0.00
Field Studies		0	0.00	0.00
Midterm exams		1	20.00	20.00
Others		0	0.00	0.00
Final Exams		1	30.00	30.00
Total Work Load				84.00
Total				2.80
ECTS Credit of the Course				3.00

Success Grade	
Contribution of Final Exam to Success Grade	50.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	

23	**Materials:** (ISBN 978-975-420-558-9) 2- Ganong "Tıbbi Fizyoloji" 3- Eric R. Kandel "Principles Of Neural Science" (ISBN 0-8385-7701-6) **Assesment** **Midterm Exam** 1 25.00 **Home work-project** 1 25.00 **Total** 3 100.00
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	5	5	0	4	0	0	0	0	5	5	5	0	0	0	0	0

ÖK2	5	5	0	4	0	0	0	0	5	5	5	0	0	0	0	0
ÖK3	5	5	0	5	0	0	0	0	5	5	5	0	0	0	0	0
ÖK4	5	5	0	5	0	0	0	0	5	5	5	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**