FTR113 - Physiology I

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)		ECTS
Physiology I	FTR 113	1.year/1.term Fall	4	-	-		4

Prequisites	
Course language	Turkish
Course type	Compulsory
Learning and teaching strategies	Lecture, Discussion
Instructor (s)	
Course objective(Aim of course)	To teach the students, After providing general information about the basic principles of physiology, its operating mechanisms and control systems of the body, in order to explain these mechanisms, the structure of the cell membrane and the passage of the substance through the membranes, regulation of fluid and electrolyte balance in the body, membrane potential, the formation and transmission of action potential, tissues that can be stimulated; muscular and peripheral nervous system, synaptic transmission mechanism, central nervous system and sensory physiology
Learning outcomes	The students will able to explain the basic principles of physiology, mechanisms and control systems of the body.
References	1.Eric P. Widmaier ; Eric P. Widmaier, Hershel Raff, Kevin T. Strang ; çeviren Tuncay Özgünen Vander insan fizyolojisi : vücut fonksiyon mekanizmaları, Ankara : Güneş Tıp Kitabevleri, 2014 2. John E.Hall; çeviri editörü Berrak Çağlayan Yeğen; editör yardımcıları İnci Alican, Zeynep Solakoğlu. Tıbbi Fizyoloji, İstanbul : Nobel Tıp, 2013 3. Kim E. Barett, Scott Boitano, Susan M. Barman, Heddwen L. Brooks ; çeviri editörü Hakkı Gökbel ; çeviri editör yardımcıları Nilsel Okudan, Serdar Gergerlioğlu, Muaz Belviranlı. Ganong'un tıbbi fizyolojisi. İstanbul : Nobel Tıp Kitabevleri, 2011

Course outline weekly:

Weeks	Topics
1. Week	Introduction to Physiology, The characteristics of living organisms The definition and importance of homeostasis. The body's homeostatic regulatory mechanisms;
2. Week	Introduction to cell physiology, Structure and functional properties of the cell membrane Body fluid compartments and content,
3. Week	Excitable tissues: peripheral nerve; Nerve fibers classification Synapses and synaptic transmission
4. Week	Membrane potentials; Gibbs-Donnan equilibrium Formation of action potentials, recording methods
5. Week	Excitable tissues; muscle, Physiological properties of skeletal muscle Neuromuscular transmission mechanism
6. Week	Introduction to the nervous system, the overall structure and function of the nervous system: States of sleep
7. Week	Reflexes, reflex activities Specifications Pathways in the spinal cord, the sensory mechanisms
8. Week	Midterm Exam
9. Week	Efferent pathways, the motor cortex Cerebellum and Basal Ganglia
10. Week	Afferent pathways, the sensory cortex General and superficial senses
11. Week	Learning, memory, language
12. Week	Autonomic and somatic nervous system
13. Week	Sense of sight Sense of hearing and balance Senses of smell and taste
14. Week	An overview
15. Week	An overview

ECTS (Student Work Load Table)

Activities	Number	Duration	Total Work Load
Course Duration (X14)	14	4	56
Laboratory			
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	1	14
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	14	14
Final Exam Preparation Time	1	16	16
Total Work Load (hour) / 25(s)	100 / 25		
ECTS	4		

Evaluation System

Mid-Term Studies	Number	Contribution
Midterm exams	1	%100
Quiz		
Laboratory		
Practice		
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		100
Final works		
Final	1	%100
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		100
Contribution Of Midterm Studies On Grades		%40
Contribution Of Final Exam On Grades		%60
Total		100

The relationship between learning outcomes and the program qualifications of the courses

Program Qualifications	Learning outcomes
	L.O.1
1-Acquire proficient infrastructure related to the field of Physiotherapy and Rehabilitation, gain the ability to use theoretical and practical knowledge and skills in this field.	5
2-Identify, define the factors affecting health and gain problem-solving skill by using the information they have; plan and implement a treatment and exercise program with appropriate evidence-based methods and new techniques.	5
3-Gain the ability to use information technologies effectively, as well as the ability to select and use modern tools, techniques and agents necessary for physiotherapy and rehabilitation applications.	
4-Design individual and multidisciplinary research, keep records, prepare reports, analyze and interpret results for quality service and research in health sciences.	
5-They conduct a literature search to access the information by using evidence-based databases and information sources.	
6-Gain autonomy in interdisciplinary and individual studies, ability to work effectively and take responsibility and awareness of the universal and social effects of their professional practice.	
7-Adopt life-long learning; contribute to quality improvement, field-related training and introductory programs and exhibit their professional behavior at national and international level.	
8-Have deontological and ethical awareness in professional researches and applications.	

Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent