

**School of Health Sciences / Nursing**

**2023 - 2024 Academic Year**

**PHYSIOLOGY**

**Syllabus**

<b>Course Description</b>					
<b>Name</b>	<b>Code</b>	<b>Semester</b>	<b>T+A Hour</b>	<b>Credit</b>	<b>ECTS</b>
PHYSIOLOGY	HEM1282310	Spring Semester	3+0	3	4
<b>Prerequisites Courses</b>					
<b>Recommended Elective Courses</b>					
<b>Language of Instruction</b>	Turkish				
<b>Course Level</b>	First Cycle (Bachelor's Degree)				
<b>Course Type</b>	Required				
<b>Course Coordinator</b>	Prof.Dr. Cafer MARANGOZ				
<b>Name of Lecturer(s)</b>	Assoc.Prof. Mustafa Çağlar BEKER				
<b>Assistant(s)</b>	Res. Asst. Yuşa Baçoğlu				
<b>Aim</b>	To provide the knowledge about the functions of cells, tissues, organs and organ systems of the human body and their interactions.				
<b>Course Content</b>	This course contains; Basic Concepts in Physiology: Organization of the Human Body, Body Fluid Compartments and Control Systems, Cell Physiology and Membrane Transport Systems ,Muscle Physiology ,Cardiovascular System: Heart ,Cardiovascular System: Circulation ,Blood Physiology ,Immune System ,Pulmonary System ,Urinary System ,Gastrointestinal System and Metabolism ,Nervous System: Central and Peripheral Nervous Systems ,Sensory System ,Endocrine System ,Reproductive System-Case Review.				
<b>Course Learning Outcomes</b>				<b>Teaching Methods</b>	<b>Assessment Methods</b>
1. Explains the functional mechanisms of cell and organ systems, their relationships with each other, and physiological control mechanisms in the body.				10, 16, 9	A
2. Explains with examples how body functions occur in healthy situations and in which physiological functions there are problems in pathological situations.				10, 16, 9	A
3. Defines the structure and functions of the cell membrane and contraction mechanisms in muscle types.				10, 16, 9	A
4. Defines the properties of blood, the functions of blood cells, hemostasis, coagulation and immune mechanisms.				10, 16, 9	A
5. Explains the pumping function of the heart and the physiological mechanisms related to the regulation of cardiac activities and circulation.				10, 16, 9	A
6. Explains the physiological mechanism and regulation of respiration and the processes related to the transportation of oxygen and carbon dioxide in the blood.				10, 16, 9	A
7. Describes the functions of the kidney, the mechanism of urine formation, and the basic mechanisms involved in the regulation of fluid-electrolyte and acid-base balance.				10, 16, 9	A
8. Counts the events related to the digestion and absorption of nutrients in the gastrointestinal tract and the functions of digestive enzymes/hormones				10, 16, 21, 9	A
9. Explains the properties of neurons and synapses, the functional structure and functions of the central and peripheral nervous system.				10, 16, 21, 9	A
10. Describes the functions of endocrine glands and hormones and the dysfunctions that occur when hormones are secreted too little or too much.				10, 16, 21, 9	A
<b>Teaching Methods</b>	10: Discussion Method, 16: Question - Answer Technique, 21: Simulation Technique, 9: Lecture Method				
<b>Assessment Methods</b>	A: Traditional Written Exam				
<b>Lecture Schedule</b>					
<b>Sequence</b>	<b>Topics</b>	<b>Preliminary Preparation</b>			
1	Basic Concepts in Physiology: Organization of the Human Body, Body Fluid Compartments and Control Systems	2nd source pages: 3-9			
2	Cell Physiology and Membrane Transport Systems	1st source pages: 3-12; 2nd source pages: 57-70			
3	Muscle Physiology	1st source pages:13-18; 2nd source pages: 72-99			
4	Cardiovascular System: Heart	1st source pages: 37-43			
5	Cardiovascular System: Circulation	1st source pages: 43-48			
6	Blood Physiology	1st source pages:19-28			
7	Immune System	1st source pages:22-25; 2nd source pages: 439-449			
8	Pulmonary System	1st source pages: 29-36			
9	Urinary System	1st source pages: 65-72			
10	Gastrointestinal System and Metabolism	1st source pages: 49-56; 2nd source pages: 881-900			
11	Nervous System: Central and Peripheral Nervous Systems	1st source pages: 87-102			
12	Sensory System	1st source pages: 73-80			
13	Endocrine System	1st source pages: 57-64			
14	Reproductive System-Case Review	1st source pages: 81-86			
<b>Evaluation Methods</b>				<b>Weight(%)</b>	
Midterm Exam				40	
General Exam				60	

<b>Resources</b>
1. Prof. Dr. Levent Ertuğrul, Fizyoloji, Akademi Basın ve Yayıncılık, 2.Baskı (2012) 2. Arthur C. Guyton, John E. Hall, Tıbbi Fizyoloji, Nobel Tıp Kitabevleri, 11.Baskı (2007)