

Course Title	Code	Semester	Theoretical (hours/week)	Practice (hours/week)	Laboratory (hours/week)	ECTS
<b>MEDICAL PHYSIOLOGY</b>	<b>BBM 535</b>	1th/2nd Semester	3	0	0	5
<b>Prerequisites</b>	None					
<b>Course Language</b>	Turkish					
<b>Course Type</b>	Elective					
<b>Teaching Methods</b>	Lecture, Discussion, Question & Answer, Homework Preparation and / or Presentation, Problem Solving, Brain Storming, Other.					
<b>Instructor(s)</b>						
<b>Course Objective</b>	To explain; basic functions of regulation mechanisms in human body, structure and function of cell membrane, transport mechanisms, biophysical basis of stimulation, how it perceives, evaluates and response to external stimuli, how body systems function and how they are regulated by autonomous and somatic nervous systems.					
<b>Course Learning Outcomes</b>	<p>Students taking this course,</p> <ol style="list-style-type: none"> <li>1- To have knowledge about the mechanisms of effective regulation in our body from molecular level to organism, details of body fluid compartments and transport mechanisms of osmotic equilibrium through cell membrane, excitable tissue of membrane potential; cellular and electrical properties of nerve, striated muscle, smooth muscle and heart muscle.</li> <li>2- Can explain the function and regulatory mechanism of autonomous and somatic nervous systems, blood, cardiovascular system, respiratory system, urogenital system, hormones, and can understand the mechanisms of regulation of the autonomic and somatic nervous system.</li> <li>3- Comprehends the importance of general functions of skin, general and superficial sensitivity, hearing, vision, smell and taste. Learns how we perceive external stimuli, how we operate, how we respond, and how it can act objectively and subjective on the nervous system.</li> </ol>					
<b>References</b>	<ol style="list-style-type: none"> <li>1- Ganong'un Tibbi Fizyolojisi (Ganong Medical Physiology) 25.inci Baskı, Çeviri Editörü Prof. Dr. Ümmühan İşoğlu-Alkaç, Nobel Tıp Kitabevleri, 2019</li> <li>2- Tibbi Fizyoloji. Yazarı Arthur C. Guyton ve ark. Türkçe çeviri 13. Baskı. Çeviri eds. B. Ç. Yeğen. Güneş Tıp Kitabevleri, 2017.</li> <li>3- Klinik Anlatımlı Tibbi Fizyoloji, Halis Köylü, Nobel Tıp Kitabevleri, 2016</li> </ol>					

## WEEKLY COURSE TOPICS

Weeks	DISCUSSION TOPICS TO BE PROCESSED
1.	Introduction to Physiology - Homeostasis - Liquid Balance in Body,
2.	Structure of Cell Membrane and Transport Systems in Cell Membrane
3.	Membrane Potential and Action Potential Formation and Recording Methods
4.	Stimulabel Tissue; Striped Muscle and Smooth Muscles
5.	CSF, Grouping and Functional Relations of Nerve Cells, Reflex, Synapse and Synaptic Messages
6.	Cerebral Cortex; Brain Biochemistry and Behavioral Relations; Reaction time, learning, memory and loss of memory
7.	General functions of skin, general and superficial sensitivity, special senses
8.	<b>Midterm exam</b>
9.	Blood Physiology
10.	Physiology of Heart and Circulatory System
11.	Physiology of Respiratory System
12.	Physiology of Digestion and Metabolism
13.	Physiology of Excretion - Urogenital System
14.	Hormones
15.	<b>Final Exam</b>

## ECTS / WORK LOAD TABLE

Activities	Number	Duration	Total Work Load
Course	14	3	42
Laboratory			
Practice			
Field Study			
Outclass course work hours ( Self working / Teamwork / Preliminary work)	16	3	48
Presentations (Video preparation / Poster preparation / Oral presentation / Focus group discussion / Applying questionnaire/ Observation and report writing)			
Seminars	1	8	8
Project			
Case study			
Role playing, dramatization			
Preparing and criticizing article			
Semester midterm exams	2	10	20
Semester final exams	1	7	7
<b>Total Work Load ( hour ) / 25(s)</b>	<b>125/25=5</b>		
<b>ECTS</b>	<b>5</b>		

## EVALUATION SYSTEM

Midterm Studies	Number	Contribution
Midterm exam	1	%25
Quiz		
Laboratory		
Practice		
Field Study		
Specific practical training (If exists)		
Homework assignment		
Presentation and seminar	1	%25
Projects		
Other evaluation methods		
<b>Total of Midterm Studies</b>		<b>%50</b>
<b>Final Studies</b>		
Final	1	%50
Homework assignment		
Practice		
Laboratory		
<b>Total of Final Studies</b>		<b>%50</b>
Contribution of midterm studies to course grade		%50
Contribution of final studies to course grade		%50
<b>Total Grade</b>		<b>100</b>

## RELATIONSHIPS BETWEEN COURSE LEARNING OUTCOMES AND PROGRAM QUALIFICATIONS

	Program Qualifications	Learning Outcomes		
		LO1	LO2	LO3
1.	Based on undergraduate level qualifications, it has up-to-date knowledge in the field of Biological and Biomedical Sciences and develops and deepens them.	4	3	3
2.	Have knowledge about information technologies, technical equipment and the devices and instruments that are specific to the field in the field of Biomedical Sciences.	3	3	4
3.	To integrate the information in the field of Biological and Biomedical Sciences with information from different disciplines and to create new information, interpret and analyze by using different research methods and propose solutions.	5	4	3
4.	He writes the report of his research.	3	2	3
5.	Can plan and apply an experimental research	3	4	3
6.	In the field of Biological and Biomedical Sciences, can offers solutions, solves the problems, evaluates the results obtained and applies when necessary.	3	3	3
7.	Makes scientific clinical and / or descriptive research / presentation / publication on priority topics related to Biological and Biomedical Sciences and public health.	3	3	2
8.	Evaluates the knowledge related to Biological and Biomedical Sciences with a critical approach.	5	4	4
9.	Applies the principles of professional development and lifelong learning in the field of Biological and Biomedical Sciences.	4	4	3
10.	Students will be able to discuss and share their knowledge in the field of Biological and Biomedical Sciences in their written, oral and visual form in a systematic manner with current and other groups.	2	3	5
11.	Examines the social relations in the professional environment and the norms that direct these relations from a critical point of view and makes necessary to develop them.	5	4	3
12.	Observes and teaches the social, scientific and ethical values in the stages of data collection, recording, interpretation and announcement in the field of Biological and Biomedical Sciences.	3	3	3

13.	Evaluates the current developments in the field of Biological and Biomedical Sciences in line with national values and realities of the country, including children and families, which are the basic unit of society.	5	4	5
14.	Knows the importance of ethical principles and rules for the individual and society, behaves ethically.	4	4	3
15.	Develops strategy, policy and implementation plans in the field of Biological and Biomedical Sciences and evaluates the obtained results within the framework of quality processes.	4	2	3

**Contribution to the level of proficiency: 1: Low 2: Low/Moderate 3: Moderate 4: High 5: Excellent**