

**ABDULLAH GUL UNIVERSITY
GRADUATE SCHOOL OF ENGINEERING & SCIENCE
BIOENGINEERING DEPARTMENT
COURSE DESCRIPTION AND SYLLABUS**

Course Name	CODE	SEMESTER	T+L Hour	CREDIT	ECST
Physiology	BENG519	FALL-SPRING	3 + 0	3	10

Prerequisite Courses

Course Type	Elective
Course Language	English
Course Coordinator	Doç.Dr. Sevil Dinçer İšoğlu
Lecturers	Doç.Dr. Sevil Dinçer İšoğlu
Course Assistants	-
Course Objectives	The purpose of the lesson is to describe biologic control in the body, homeostasis, cellular transportation system
Learning Outcomes	<p>Student,</p> <ul style="list-style-type: none"> • has information about the homeostasis and biologic control • learns in general terms hormonal control, nervous system, skeletal-muscular system • learns in general terms blood circulation, respiratory and urinary system • has knowledge about immune system • learns literature search how he/she can do and learns follow current studies.
Course Content	Course includes maintain of homeostasis, cellular transportation events, nervous system, skeletal-muscular system, circulatory system, respiratory system, urinary and immune system

WEEKLY SUBJECTS AND RELATED PRELIMINARY PAGES

Weeks	Subjects	Preliminary
1	Maintain of homeostasis	Related parts from suggested books, academic papers
2	Cellular transportation events: Membrane transportation	Related parts from suggested books, academic papers
3	Membrane potential, diffusion	Related parts from suggested books, academic papers
4	Central nervous system	Related parts from suggested books, academic papers
5	Hormones	Related parts from suggested books, academic papers
6	Skeletal-muscular system	Related parts from suggested books, academic papers
7	Blood structure	Related parts from suggested books, academic papers
8	Blood circulation	Related parts from suggested books, academic papers
9	MIDTERM	
10	Respiratory system	Related parts from suggested books, academic papers

11	Kidneys	Related parts from suggested books, academic papers
12	Urinary System	Related parts from suggested books, academic papers
13	Immune System I	Related parts from suggested books, academic papers
14	Immune System II	Related parts from suggested books, academic papers
15	Presentations	
16	FINAL	

RESOURCES

Course Notes

(a) Human Physiology, Rhoades and Pflanzer, 4th edition.

Other Resources Scientific articles related to subject

MATERIAL SHARING

Documents

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Homework

There is not homework. Scientific presentation will be made related to a chosen subject at the end of the semester.

Exams

Midterm, final

RATING SYSTEM

SEMESTER WORKS	NUMBER	CONTRIBUTION
Midterm	1	35
Short exam	-	-
Presentation	1	25
Final		40
TOTAL		100
Success Rate of Semester		60
Success Rate of Final		40
TOTAL		100

Course Category

Basic Sciences and Mathematics	%100
Engineering Sciences	
Social Sciences	

THE RELATIONSHIP BETWEEN THE LEARNING OUTCOMES AND PROGRAM COMPETENCE

	No Program Outcomes	Contribution Level				
		1	2	3	4	5
1	Understanding of Life Sciences, Mathematics and Engineering at the post-graduate level, and being able to implement of this knowledge into bioengineering problems					x
2	Having the ability of developing a new scientific method or a technological product or process, and, designing experiments, implementing, collecting data and evaluating regarding these issues					x
3	Choosing technical equipment used in the applications related to bioengineering, having sufficient knowledge in adopting and using new technological equipment					x

4	Having the ability of reaching the information, using resources, contributing to the literature by transferring the process and results of scientific studies as written or verbally in the national and international environments				x
5	Having the ability of working as an individual or a team, in the teams composed of discipline or different disciplines, gaining awareness of leadership and taking responsibility			x	
6	Having advanced level of foreign language knowledge to manage efficient verbal, written and visual communication in the major field				x
7	Having the understanding of ethics in science and the responsibility in profession with the awareness of lifelong learning, being beneficial to society and sensitiveness to global issues				x
8	Being aware of the social impacts of the solutions and applications of the challenges regarding Bioengineering			x	

*From 1 to 5, it increasingly goes.

ECTS / WORK-LOAD TABLE			
Activities	Activities	Duration (Hour)	Total (Work-Load)
Course Duration (Including exam week: 16x total course hour)	16	3	48
Out of Class Exercise Time (Pre-study, reinforcement)	16	7	112
Reading			
Searching on Internet, library study	16	5	90
Material Designing, practice			
Preparation of report			
Preparation of presentation	1	18	18
Presentation	1	3	3
Homework			
Midterms	1	15	15
Final	1	15	15
Total Work-Load			301
Total Work-Load / 30			301/30
Course ECTS Credit			10