

Dentistry (English)			
Bachelor	TR-NQF-HE: Level 6	QF-EHEA: First Cycle	EQF-LLL: Level 6

## Course Introduction and Application Information

Course Code:	DENT207		
Course Name:	Physiology 1		
Semester:	Fall		
Course Credits:	<div>ECTS</div> <div>2</div>		
Language of instruction:	English		
Course Condition:			
Does the Course Require Work Experience?:	No		
Type of course:	Compulsory Courses		
Course Level:	<div> <div>Bachelor</div> <div>TR-NQF-HE:6. Master`s Degree</div> <div>QF-EHEA:First Cycle</div> <div>EQF-LLL:6. Master`s Degree</div> </div>		
Mode of Delivery:	Face to face		
Course Coordinator:	Prof. Dr. RAUF ONUR EK		
Course Lecturer(s):	Prof Rauf Onur Ek		
Course Assistants:			

## Course Objective and Content

Course Objectives:	The primary objective of the DENT 207 Course is to ensure that students understand how the body works. After completing this course students should be able to: 1. Define homeostasis and explain how homeostatic mechanisms normally maintain a constant interior milieu. 2. State the functions of each circulatory and respiratory system 3. Understand and demonstrate the interrelations of the systems.

Course Content:	Homeostasis, Cell Signaling in Physiology, Action potential and Skeletal Muscle Contraction, Smooth and Cardiac Muscle Contraction, Hemostasis: The Prevention of Blood Loss, The Heart and The Vascular System, Organization of the Respiratory System, Lung Mechanics, Alveolar Ventilation, Transport of Oxygen in Blood, Transport of Carbon Dioxide in Blood, Transport of Hydrogen Ion Between Tissues and Lungs
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## Learning Outcomes

The students who have succeeded in this course;

- 1) Define homeostasis and explain how homeostatic mechanisms normally maintain a constant interior milieu.
- 2) Knows the functions of each circulatory and respiratory systems
- 3) Knows and demonstrates the interrelations of the systems.

## Course Flow Plan

Week	Subject	Related Preparation
1)	Homeostasis: A Framework for Human Physiology	-
2)	Movement of Solutes and Water Across Cell Membranes	-
3)	Cell Signaling in Physiology	-
4)	Action potential and Skeletal Muscle Contraction	-
5)	Smooth and Cardiac Muscle Contraction	-
6)	Blood Physiology	-
7)	Hemostasis: The Prevention of Blood Loss	-
8)	MIDTERM EXAM	-
9)	The Heart	-
10)	The Vascular System	-
11)	Integration of Cardiovascular Function: Regulation of Systemic Arterial Pressure	-
12)	Organization of the Respiratory System, Principles of Ventilation	-
13)	Lung Mechanics, Alveolar Ventilation, Exchange of Gases in Alveoli and Tissues	-
14)	Transport of Oxygen in Blood, Transport of Carbon Dioxide in Blood, Transport of Hydrogen Ion Between Tissues and Lungs	-

## Sources

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Course Notes / Textbooks:	VANDER'S Human Physiology The Mechanisms of Body Function 15th Edition
References:	Guyton and Hall Textbook of Medical Physiology, 12th Edition

### Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3
Program Outcomes			
1) Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	2	2	2
2) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.			
3) Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.	2	2	2
4) Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	2	2	2
5) Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	2	2	2
6) Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.			
7) Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.			
8) Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices.			
9) By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.			
10) During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data.			
11) Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.			
12) In natural disasters and emergency cases, takes the protective measures required by the			

dentistry profession; performs professional practices that benefit patients and society	1	2	3
<b>Course Learning Outcomes</b>			
13) Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.			
14) Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority.			
15) Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.			

### Course - Learning Outcome Relationship

No Effect	1 Lowest	2 Average	3 Highest

	Program Outcomes	Level of Contribution
1)	Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice.	2
2)	Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry.	
3)	Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it.	2
4)	Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level.	2
5)	Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations.	2
6)	Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms.	
7)	Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach.	
8)	Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance	

	dental practices.	
9)	By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice.	
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11)	Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities.	
12)	In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society	
13)	Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes.	
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15)	Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team.	

### Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution
Midterms	1	% 40
Final	1	% 60
<b>total</b>		<b>% 100</b>
PERCENTAGE OF SEMESTER WORK		% 40
PERCENTAGE OF FINAL WORK		% 60
<b>total</b>		<b>% 100</b>

### Workload and ECTS Credit Calculation

Activities	Number of Activities	Preparation for the Activity	Spent for the Activity Itself	Completing the Activity Requirements	Workload
Course	26	1	1		52

Hours					
Midterms	1	4	1		5
Final	1	4	1		5
Total Workload					62