



**T.C.**  
**ISTANBUL OKAN UNIVERSITY**  
**FACULTY OF DENTISTRY**  
**2021-2022 ACADEMIC YEAR**



**FACULTY:** ISTANBUL OKAN UNIVERSITY FACULTY OF MEDICINE  
**COURSE CODE and TITLE:** DENT107 BIOPHYSICS  
**LECTURER:** Asst. Prof. Dr. Hümbet AHMEDOV  
**CLASS:** 1st CLASS  
**SEMESTER:** FALL SEMESTER (1st SEMESTER)  
**DAY:** TUESDAY (Hybrit)  
**TIME:** 13.30-15.20

WEEK	DATE	DENT107 BIOPHYSICS COURSE TITLES	LECTURER
WEEK 1	online	Introduction to Biophysics.	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 2	12.10.2021	Static Forces and Biomechanical Equilibrium. Occlusal Forces.	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 3	online	Elasticity and Strength of Materials. Elastic properties of tissues.	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 4	26.10.2021	Young's Modulus and Strength of teeth and dental materials. Enamel and Dentin.	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 5	online	Electric Force and Electric Field. Electric Potential. Electrical Properties of Nerve Cells	Asst. Prof. Dr. Hümbet AHMEDOV

WEEK 6	<b>09.11.2021</b>	Capacitance and Insulators. Insulating Cell Membrane.	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 7	<b>online</b>	Voltage-clamp experiment and current through the cell membrane.	Asst. Prof. Dr. Hümbet AHMEDOV
<b>WEEK 8</b>	<b>22.11-03.12.2021</b>	<b>MID-TERM EXAM</b>	
WEEK 9	<b>07.12.2021</b>	Radiation Biophysics. Basic Concepts of Nuclear Physics	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 10	<b>Online</b>	Radiations and their Interaction with Matter. Radiation Doses	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 11	<b>Online</b>	Biological Effects of Radiation	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 12	<b>28.12.2021</b>	Use of Radioisotopes in Medicine. Radiation Therapy	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 13	<b>online</b>	Internal Dosimetry. Dosimetry Models of Respiratory and Gastrointestinal Systems	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 14	<b>online</b>	Radiation Safety	Asst. Prof. Dr. Hümbet AHMEDOV
WEEK 15	<b>online</b>	Lasers and their Applications in Medicine	Asst. Prof. Dr. Hümbet AHMEDOV
	<b>24.01-04.02.2022</b>	<b>FINAL EXAM WEEK</b>	
	<b>14-18.02.2022</b>	<b>MAKE-UP WEEK</b>	