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| **FAKÜLTE** | **:** | **DİŞ HEKİMLİĞİ** |
| **DERS KODU ve ADI** | **:** | **DENT107 BIOPHYSICS** |
| **SORUMLU ÖĞRETİM ÜYESİ** | **:** | **Dr.Öğr.Üy. HÜMBET AHMEDOV** |
| **SINIF** | **:** | **BİRİNCİ** |
| **YARIYIL / YIL** | **:** | **GÜZ** |
| **DERS GÜNÜ** | **:** | **PAZARTESİ** |
| **DERS SAATİ** | **:** | **11:00-12:50** |

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| **WEEK** | **DATE** | **DENT107 BIOPHYSICS** | **INSTRUCTOR** |
| **1st WEEK** |  | Lesson 1. Introduction to biophysics. Atoms and Molecules. Phase States of Matter. | Assist.Prof.Dr. Hümbet Ahmedov |
| **2nd WEEK** |  | Lesson 2. Static Forces and Biomechanical Balance. Occlusal forces. | Assist.Prof.Dr. Hümbet Ahmedov |
| **3rd WEEK** |  | Lesson 3. Elasticity and Strength of Materials. Stress and strain. | Assist.Prof.Dr. Hümbet Ahmedov |
| **4th WEEK** |  | Lesson 4. Young's modulus and rupture strength of teeth and dental materials. Enamel and dentin. | Assist.Prof.Dr. Hümbet Ahmedov |
| **5th WEEK** |  | Lesson 5. Charge distribution in the nerve cell. Nernst potential. | Assist.Prof.Dr. Hümbet Ahmedov |
| **6th WEEK** |  | Lesson 6. Electrical properties of insulating cell membrane. | Assist.Prof.Dr. Hümbet Ahmedov |
| **7th WEEK** |  | Lesson 7. Voltage-clamp experiment and current across cell membrane | Assist.Prof.Dr. Hümbet Ahmedov |
| **8th WEEK****9th WEEK** |  | **1st MIDTERM EXAMS**  |
| **10th WEEK** |  | Lesson 1. Introduction to Radiation Biophysics. Basic concepts of nuclear physics. | Assist.Prof.Dr. Hümbet Ahmedov |
| **11th WEEK** |  | Lesson 2. Alpha, beta, gamma radiations. | Assist.Prof.Dr. Hümbet Ahmedov |
| **12th WEEK** |  | Lesson 3. Interaction of radiations with matter. Radiation doses. | Assist.Prof.Dr. Hümbet Ahmedov |
| **13th WEEK** |  | Lesson 4. Biological effects of radiations. Use of radioisotopes in medical diagnosis and therapy. Radiation therapy. | Assist.Prof.Dr. Hümbet Ahmedov |
| **14th WEEK** |  | Lesson 5. Internal dosimetry. Dosimetry models of the respiratory and gastrointestinal tract. | Assist.Prof.Dr. Hümbet Ahmedov |
| **15th WEEK** |  | Lesson 6. Radiation safety. | Assist.Prof.Dr. Hümbet Ahmedov |
| **16th WEEK** |  | Lesson 7. Use of lasers in medicine. | Assist.Prof.Dr. Hümbet Ahmedov |
|  |  | **FINAL EXAM**  |
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|  |  | **MAKE UP EXAM**  |