

## COMMITTEE COURSE CONTENT

**University:** Muğla Sıtkı Koçman University

**Faculty:** Faculty of Medicine/ **Program:** English Program

**Academic Year:** 2021-2022

**Phase:** 1/ **Comitee:** 1 (Cell Sciences)

**Course Code:** MED 1100/ **ECTS:** 8 / **Theoric+Practice Lesson +Laboratory Lesson**

**Course Type :** Compulsory/ **Course Length :** 9 weeks / **Type of Teaching :** Formal/ **Language of Instruction :** English

### Biophysics (MED 1006)

**Theoretical:**

1. Energy, power and metabolic rate (2 hour)
2. Measuring, Significant Numbers and SI System (2 hour)
3. Scaling and Size, Function Relationship in Living Creatures (2 hour)
4. Strength, Balance, Mobility and Human Body (4 hour)

**Practical:**

- 1.

### Biostatistics (MED 1004)

**Theoretical:**

1. Biostatistics and General Concepts. Displaying and Describing Categorical Data (2 hour)
2. Displaying and Summarizing Quantitative Data (2 hour)
3. From Randomness to Probability (2 hour)
4. Numerical Descriptors (2 hour)
5. Probability Rules (2 hour)
6. Sampling Methods, Observational Studies and Experiments (2 hour)

**Practical:**

1. Displaying and Summarizing Data with Statistical Software R (2 hour)
2. Introduction to Statistical Software R (2 hour)

### Histology (MED 1009)

**Theoretical:**

1. Cell damage and death (2 hour)
2. Cell Division and Cell Cycle (2 hour)
3. Cell membrane (2 hour)
4. Cytoskeleton, Inclusions (2 hour)
5. Definition of histology, microscopes and histologic techniques (1 hour)
6. General properties of cells (1 hour)
7. Membraneous organelles (2 hour)
8. Nucleus (2 hour)

**Practical:**

1. Microscope and Cell (1 hour)

### Medical Biochemistry (MED 1001)

**Theoretical:**

1. Biological membrane chemistry and cellular transport (4 hour)
2. Biomolecules and separation techniques (2 hour)
3. Body water equilibrium and Concentration concept (2 hour)
4. Cell biochemistry and Cellular Organelles (2 hour)
5. Functional groups (Acids, Esters & Amides) (2 hour)
6. Functional groups (Alcohols, & Ethers) (2 hour)
7. Functional groups (Aldehydes & Ketones) (2 hour)
8. Functional groups (atomic & molecular structures. Chemical bonds, organic molecules) (2 hour)
9. Functional groups (Hydrocarbons, Alkanes, Alkenes, Alkynes, Alkyl groups) (2 hour)

<p>10. Introduction to Medical Biochemistry (2 hour)</p> <p>11. Medical Biochemistry Lab. Instrumentation (2 hour)</p> <p><b>Practical:</b></p> <p>1.</p>
<p><b>Medical Biology (MED 1017)</b></p> <p><b>Theoretical:</b></p> <ol style="list-style-type: none"> <li>1. Cell concept, prokaryotic and eukaryotic cell properties (2 hour)</li> <li>2. Cell membrane structure and synthesis (2 hour)</li> <li>3. Cell Skeleton (4 hour)</li> <li>4. Cell surface differentiation Adhesion molecules ECM (2 hour)</li> <li>5. Intercellular Connections (2 hour)</li> <li>6. Organelles (6h)</li> <li>7. Signal transmission in the cell (4 hour)</li> <li>8. Transport of substances from the cell membrane (2 hour)</li> </ol> <p><b>Practical:</b></p> <ol style="list-style-type: none"> <li>1. Light microscope and usage technique (1 hour)</li> <li>2. Plant and animal cell. Microscopic examination (21)</li> </ol>
<p><b>Medical Genetics (MED 1016)</b></p> <p><b>Theoretical:</b></p> <ol style="list-style-type: none"> <li>1. Genetic Counseling (1 hour)</li> <li>2. Genetic Ethics (1 hour)</li> <li>3. Genetics and Medical Genetics (1 hour)</li> <li>4. Medical Genetics Clinic (1 hour)</li> </ol> <p><b>Practical:</b></p> <p>1.</p>
<p><b>Medical History and Ethics (MED 1003)</b></p> <p><b>Theoretical:</b></p> <ol style="list-style-type: none"> <li>1. Beginning of experimental medicine with new discoveries and physicians (2 hour)</li> <li>2. Health and disease concepts in primitive societies and early civilizations, diagnosis and therapeutic approaches (2 hour)</li> <li>3. Health services since the foundation of the Republic (1 hour)</li> <li>4. Hippocrates and clinical medicine, the new identity of physician (1 hour)</li> <li>5. Important physicians of Eastern medicine (1 hour)</li> <li>6. Introduction to history of medicine, physician identity before Hippocrates, physician oaths (1 hour)</li> <li>7. Medieval West Medicine in Middle-age and establishment of the universities (1 hour)</li> <li>8. Renaissance and the birth of modern medicine (1 hour)</li> <li>9. The migration of science to the East and Middle Ages Eastern Medicine (1 hour)</li> <li>10. Turkish physicians in struggling infectious diseases (2 hour)</li> <li>11. Medicine in the Turkic and Ottoman Period (1 hour)</li> </ol> <p><b>Practical:</b></p> <p>1.</p>
<p><b>Other:</b></p> <p>1.</p>
<p><b>Non- Comitee Courses:</b></p> <ol style="list-style-type: none"> <li>1. Principles of Atatürk and Revolutionary History (ATB 1801) (12 hour)</li> <li>2. Turkish Language and Literature (TDB 1801) (9 hour)</li> <li>3. Elective Lectures (10 hour)</li> <li>4. Foreign Language (YDB 1831) (18 hour)</li> <li>5. Introduction to Information &amp; Communication Technologies (ENF 1905) (24 hour)</li> </ol>