### COMMITTEE COURSE CONTENT

University: Muğla Sıtkı Koçman University

Faculty: Faculty of Medicine/ Program: English Program

Academic Year: 2024-2025

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. Collisions and Airbags (1 hour)
- 2. Energy, power and metabolic rate (2 hour)
- 3. Measuring, Significant Numbers and SI System (1 hour)
- 4. Strength, Balance, Mobility and Human Body (4 hour)
- 5. The importance of water (2 hour)

Practical:

#### 1.

#### **Biostatistics (MED 1018)**

#### Theoretical:

- 1. Basic statistical concepts and terminology (1 hour)
- 2. Describing Data, Graphic Presentation (1 hour)
- 3. Introduction to medical statistics (1 hour)
- 4. Measures of central tendency (1 hour)
- 5. Probability (1 hour)
- 6. SPSS practice (1 hour)

#### Practical:

- 1. Measures of central variability (1 hour)
- 2. Two variables tables and graphics (1 hour)

#### Histology and Embryology (MED 1009)

#### Theoretical:

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

### Practical:

## 1. 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)

- 10. Introduction to Medical Biochemistry (2 hour)
- 11. Medical Biochemistry Lab. Instrumentation (2 hour)

Practical: 1.

## Medical Biology (MED 1017)

## Theoretical:

- 1. Cell concept, prokaryotic and eukaryotic cell properties (2 hour)
- 2. Cell membrane structure and synthesis (2 hour)
- 3. Cell Skeleton (4 hour)
- 4. Cell surface differentiation Adhesion molecules ECM (2 hour)
- 5. Intercellular Connections (2 hour)
- 6. Organelles (6h)
- 7. Signal transmission in the cell (4 hour)
- 8. Transport of substances from the cell membrane (2 hour)

#### Practical:

- 1. Light microscope and usage technique (1 hour)
- 2. Plant and animal cell. Microscopic examination (1 hour)

#### 3.

# Medical Genetics (MED 1016)

## Theoretical:

- 1. Genetic Counselling (1 hour)
- 2. Genetic Ethics (1 hour)
- 3. Genetics and Medical Genetics (1 hour)
- 4. Medical Genetics Clinic (1 hour)

## Practical:

#### 1. Medical History and Ethics (MED 1003)

## Theoretical:

- 1. Beginning of experimental medicine with new discoveries and physicians (2 hour)
- 2. Health and disease concepts in primitive societies and early civilizations, diagnosis and therapeutic approaches (2 hour)
- 3. Health services since the foundation of the Republic (1 hour)
- 4. Hippocrates and clinical medicine, the new identity of physician (1 hour)
- 5. Important physicians of Eastern medicine (1 hour)
- 6. Introduction to history of medicine, physician identity before Hippocrates, physician oaths (1 hour)
- 7. Medicine in the Turkic and Ottoman Period (1 hour)
- 8. Medieval West Medicine in Middle-age and establishment of the universities (1 hour)
- 9. Renaissance and the birth of modern medicine (1 hour)
- 10. The migration of science to the East and Middle Ages Eastern Medicine (1 hour)
- 11. Turkish physicians in struggling infectious diseases (2 hour)

## Practical:

#### 1. Other:

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## Non- Comitee Courses:

- 1. Ataturk's Principles and History of Revolution (ATB 1801) (8 hour)
- 2. Turkish Language and Literature (TDB 1801) (9 hour)
- 3. Elective Courses (9 hour)
- 4. Foreign Language (YDB 1831) (15 hour)
- 5. Introduction to Information & Communication Technologies (ENF 1805) (12 hour)
- 6.