

## COMMITTEE COURSE CONTENT

**University:** Muğla Sıtkı Koçman University

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

**Academic Year:** 2022-2023

**Phase: 2 Comitee: 2 (CIRCULATORY AND RESPIRATORY SYSTEMS)**

**Course Code: 2200/ ECTS: 12 / Theoric+Practice Lesson +Laboratory Lesson**

**Course Type : Compulsory/ Course Length : 7 weeks/ Type of Teaching : Formal/ Language of Instruction : English**

### **Anatomy (MED 2004)**

#### **Theoretical:**

1. Anatomy of Thoracic Wall (2 hour)
2. Anterior and Lateral Cervical Region (2 hour)
3. Arch of Aorta (1 hour)
4. Deep Structures of Neck (2 hour)
5. Diaphragm (1 hour)
6. Fetal Circulation (1 hour)
7. Heart and Pericardium (3 hour)
8. Larynx (2 hour)
9. Lymphoid System and vessels (2 hour)
10. Mediastinum (1 hour)
11. Nose and Structure of Nose (2 hour)
12. Thoracic Aorta (1 hour)
13. Trachea and Lungs (2 hour)
14. Veins of Face and Neck (1 hour)
15. Veins of Thorax (1 hour)

#### **Practical:**

1. Anatomy of Thoracic Wall (2 hour)
2. Arch of Aorta, Thoracic Aorta (2 hour)
3. Deep Structures of Neck Anterior and Lateral Cervical Region (2 hour)
4. Diaphragm, Mediastinum (2 hour)
5. Heart and Pericardium, Fetal Circulation (2 hour)
6. Larynx (2 hour)
7. Lymphoid System and vessels (2 hour)
8. Nose and Structure of Nose (2 hour)
9. Trachea and Lungs (2 hour)
10. Veins of Face and Neck, Veins of Thorax (3 hour)

### **Biophysics (MED 2002)**

#### **Theoretical:**

1. Bernoulli Principle, Poiseuille Law and Blood Flow (1 hour)
2. Laplace Law and Aneurysm (1 hour)
3. Lung Volume and Capacity and Functional Residual Capacity measurement (1 hour)
4. Measurement Methods of Blood Pressure and Blood Flow (1 hour)
5. Physical Foundations of ECG (2 hour)
6. Relation Among Hydrostatic Pressure and edema, Varicosis and Blood Pressure (Tension) (1 hour)
7. Respiratory System and Blood Gases (1 hour)
8. Surface Tension, Surfactant and Alveoli Mechanism (1 hour)
9. The efficiency and Strength of the Heart (1 hour)

### **Histology- Embryology (MED 2003)**

**Theoretical:**

1. Lymphoid System; Development of Lymphoid Organs (3 hour)
2. Lymphoid System; microscopic introduction (2 hour)
3. Circulatory System (4 hour)
4. Development of Cardiovascular System (2 hour)
5. Development of Head and Neck (2 hour)
6. Development of Respiratory System (1 hour)
7. Fetal Circulation (1 hour)
8. Microscopic evaluation of Committee (1 hour)
9. Respiratory System (2 hour)

**Practical:**

1. Circulatory System (1 hour)
2. Lymphoid System (2 hour)
3. Respiratory System (2 hour)

**M. Biochemistry (MED 2001)****Theoretical:**

1. Heme Biosynthesis & Porphyrins (2 hour)
2. Iron Metabolism (2 hour)
3. M. Biochemistry of Coagulation proteins (2 hour)
4. M. Biochemistry of Erythrocytes and Blood (2 hour)
5. M. Biochemistry of Respiratory System (2 hour)

**M. Microbiology (MED 2007)****Theoretical:**

1. Antigen Processing and Presentation to T Lymphocytes (2 hour)
2. Antigen Recognition (2 hour)
3. Cell-mediated Immunity (2 hour)
4. Cells and Tissues of the Adaptive Immune System (1 hour)
5. Effector Mechanisms of Cellular Immunity (2 hour)
6. Effector Mechanisms of Humoral Immunity (2 hour)
7. Effector Mechanisms of Innate Immunity and Inflammatory Response (2 hour)
8. Innate Immunity (2 hour)
9. Introduction to Basic Immunology (2 hour)
10. Termination of the Immune Response (2 hour)

**Practical:**

1. Growth Media and Inoculation techniques on Media (2 hour)
2. Staining Methods of Bacteria (2 hour)

**Physiology (MED 2006)****Theoretical:**

1. Alveolar Ventilation and Perfusion (2 hour)
2. Blood Pressure ; Rapid and Long-term Regulation (2 hour)
3. Cardiac Output, Venous Return and their Regulation (2 hour)
4. Circulatory System, Medical Physics of Pressure, Flow and Resistance (2 hour)
5. Electrocardiography (ECG) I (2 hour)
6. Electrocardiography (ECG) II: Cardiac Arrhythmia and Electrocardiographic Interpretation (2 hour)
7. Heart Sound and Valvular Heart Disease (2 hour)
8. Morphology of Respiratory System (2 hour)
9. Physical Principles of Gases Exchange and Diffusions (3 hour)
10. Physiological Laboratory Methods 11 (ECG) (2 hour)
11. Physiological Laboratory Methods III (Respiratory function tests) (2 hour)
12. Pulmonary Circulation. Pulmonary Edema and Pleural Fluid (2 hour)
13. Pulmonary Ventilation (2 hour)

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| <ol style="list-style-type: none"><li>14. Regulation of Respiration (2 hour)</li><li>15. Rhythmic Excitation of the Heart and Specialized Excitatory and Conductive System of the Heart (2 hour)</li><li>16. The Cardiac Cycle (2 hour)</li><li>17. The Heart as a Mechanical Pump and Function of the Heart Valves (2 hour)</li><li>18. The Microcirculation and Lymphatic System (2 hour)</li></ol> |
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<b>Other:</b>
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<b>Non-Comitee Courses:</b>
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| <ol style="list-style-type: none"><li>1. Foreign Language (12 hour)</li></ol> |
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