

## **SCHOOL OF MEDICINE PHASE II,**

### **AIM**

1. To be able to explain the etiopathogenesis, mechanisms and genetic features of neoplasia
2. Recognition of viral, mycological and parasitological agents that cause infectious diseases, disease-causing mechanisms, diagnosis and treatment methods and ways of prevention.
3. To be able to explain the general histological, anatomical structures and functions of the tissues and organs that make up the blood and lymph systems, to describe the pathology, treatment and clinic of the diseases of this system.
4. Anatomical and histological general structures and functions of the structural elements and tissues that make up the central nervous system, associating them with the general functions of the body, defining the mechanisms, etiology, clinical findings, symptomatology and treatment methods of central nervous system disorders,
5. To be able to explain the basic physiological, anatomical, histological and biochemical features of the musculoskeletal system, to convey information about the pathology, symptoms, clinical features and treatment of congenital, developmental, degenerative, infectious, inflammatory and metabolic diseases in clinical terms,
6. It is aimed to explain the functions of the circulatory and respiratory systems in terms of basic sciences, anatomical, histological, physiological, biochemical, examine them microbiologically, and explain the etiopathogenesis, clinical features, symptomatology and treatment principles of the diseases in terms of clinical sciences.

### **LEARNING OBJECTIVES**

At the end of the second year, students; Information

1. Will be able to define and classify neoplasia, explain its pathogenesis and etiology. will be able to enumerate the biochemical and genetic mechanisms
2. Will be able to recognize viral, mycological and parasitological agents that cause infectious diseases, to define disease-causing mechanisms, diagnosis and treatment methods and prevention methods.
3. Will be able to explain the anatomical and histological structure, physiological biochemical properties of blood and lymph tissue in terms of basic sciences, explain the diseases, etiopathogenesis, pathological features, clinical and symptomatology, treatment methods of blood and lymph tissues in general terms in terms of clinical sciences,
4. Will be able to explain the features of congenital, developmental, degenerative, infectious, inflammatory and metabolic diseases related to musculoskeletal system diseases.
5. To be able to count the embryological development, histological structure, anatomical structure and physiological characteristics and differences of the central and peripheral nervous system (CNS) in terms of basic sciences, to define the pathological and clinical features in terms of clinical sciences, to explain pharmacological agents, mechanisms of action, beneficial and negative effects,
6. Will be able to explain the anatomical and histological features of the circulatory and respiratory

system in terms of basic sciences, discuss the physiological mechanisms, transfer biochemical data, explain what the diseases are, causes, pathology, clinics in clinical terms, and describe the pharmacological properties, structure, features of the drugs used.

#### Skill

1. Will be able to apply lumbar spine physical examination, application of elastic bandage to wrist and forearm, X-Ray evaluation of musculoskeletal system and intramuscular injection on models.
2. To be able to analyze how to take EMG and EEG in humans, how recordings change under changing conditions, and to analyze recordings simply, patella reflex,
3. Will be able to list the radiological tests used in the diagnosis of musculoskeletal system diseases.
4. Will be able to apply microscopic and other diagnostic methods for the identification of bacteria, viruses, fungi and parasitic agents in laboratory environments,
5. Able to sew and take stitches,

#### Attitude

1. Will be able to realize the importance of medical ethics and patient-doctor communication,
2. Will be able to comprehend the importance of respect in human relations,
3. Will be able to care about the professional attitudes required by the medical profession.

#### PHASE II

### **Neoplasia, Infection, Hematopoietic System**

#### AIM

Neoplasia; It is aimed to be able to comprehend general pathology information, discuss the biology and pathogenesis of cancer, explain the characteristics of cancerous cells, list the methods of protection and drugs used in treatment.

Infection; Recognition of viral, mycological and parasitological factors that cause diseases, disease-causing mechanisms, diagnosis and treatment methods, and ways of prevention are aimed to be comprehended.

#### **Hematology ;**

1. To be able to make general concepts and definitions of hematology
2. The general structures and functions of the tissues and organs that make up the blood and lymph systems are related to metabolic functions (hemostasis, iron and hemoglobin metabolism, fluid-electrolyte balance, transport of blood gases, acid-base balance, temperature regulation, bleeding and coagulation mechanism, defense functions, etc.) in the human body, it is aimed to learn the details of blood and lymph biology.

3. For this purpose, first of all, the general structure of the organs and tissues of the blood and lymphatic system and then their functions are studied and the functions of these two tissues in metabolic activities are learned,

4. It is aimed to gain knowledge, attitudes and skills about the detection methods of these disorders.

### **LEARNING OBJECTIVES**

**At the end of this committee;**

**In terms of Basic Sciences;**

1. Will be able to explain the anatomical and histological structure of blood tissue,
2. Will be able to explain the tasks and functions of blood and lymph tissues in the biological process (hemostasis, maintaining fluid-electrolyte balance, transporting blood gases, acid-base balance, temperature regulation, bleeding, coagulation, etc.),
3. Will be able to define the methods used in the examination of blood and lymph tissues (hemogram, hemoglobin determination, hematocrit value determination, CBC, differential blood count, sedimentation, determination of lymphocyte types, testing bleeding and coagulation processes, automatic and manual methods, etc.),
4. Will be able to define normal flora elements and pathogenic agents,

**In terms of Clinical Sciences;**

1. Will be able to explain the causes of tumor formation,
2. Will be able to list the characteristic features of tumors,
3. Will be able to explain the mechanisms of carcinogenesis and the etiological factors and oncogenic agents that can cause cancer,
4. Will be able to define the disease-causing mechanisms of infectious agents, tell the laboratory diagnosis, explain the treatment and prevention methods,
5. Will be able to explain immunological mechanisms related to infection,
6. Will be able to explain the diseases and symptoms of blood and lymph tissues, clinical findings (anemia, polycythemia, leukemia, hemoglobinopathies, bleeding and coagulation disorders, etc.),
7. Will be able to explain the pathophysiology, etiology, findings, laboratory and diagnostic methods of benign, malignant and infectious diseases of the blood and lymphatic system.
8. Will be able to explain hematological drugs and their usage areas,
9. It is aimed to gain basic theoretical knowledge, attitude and skills about prevention of neoplasia, infection and hematology diseases, prevention of diseases and medical treatment approaches.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	5	1	3	1	1	1	2	2
LO2	5	2	3	1	3	2	2	2
LO3	5	2	3	2	2	2	3	2
LO4	4	1	3	1	1	1	2	2
LO5	5	2	4	1	2	2	3	3
LO6	4	1	2	1	1	1	2	2
LO7	5	1	4	1	2	2	4	3
LO8	5	1	3	1	2	1	2	2
LO9	5	1	3	1	2	1	2	2
LO10	5	1	4	1	1	1	2	2
LO11	5	1	4	1	2	1	3	3
LO12	5	1	4	1	1	1	3	1
LO13	4	3	4	1	2	2	3	3

## **CENTRAL NERVOUS SYSTEM**

### **AIM**

1. To be able to explain the anatomical and histological structure, organization, functions, general functions of the body, and biochemical reactions of the structural elements and tissues that make up the central nervous system.
2. It is aimed to discuss the mechanisms, clinic, treatment and pathology of central nervous system disorders.

### **LEARNING OBJECTIVES**

**At the end of this committee;**

**In terms of Basic Sciences;**

1. Will be able to describe the embryological development, histological structure, anatomical and physiological features of the central nervous system (CNS), the relationship between the brain, brain stem and spinal cord, the distinctive features of the central and peripheral nervous system, and the functions of cerebral cortical structures,
2. Will be able to explain the nervous system biochemistry and CSF analysis, the composition and function of the fluid in the central nervous system, the function of the blood-brain barrier in CNS nutrition and protection,
3. Will be able to describe the specialized functions of structures located in the brain stem, functions of the cerebellum and basal ganglia, learning memory and higher cortical functions of the brain,
4. Will be able to explain the functions of the thalamus and limbic system, the

structural and functional differences between the somatic and autonomic nervous systems, the features and functions of the autonomic nervous system,

### In terms of Clinical Sciences

1. Will be able to explain the pathological findings, etiopathogenesis, macroscopic and microscopic features of CNS disorders,
2. Explain the microorganisms associated with CNS and the diseases it causes.
3. Will be able to define the pharmacological properties of drugs used in the treatment of CNS diseases,
4. will be able to define the methods used in the diagnosis of CNS diseases.
5. It is aimed to gain knowledge, attitudes and skills about neurological and psychiatric related diseases.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>LO1</b>	4	1	3	1	1	1	2	2
<b>LO2</b>	4	1	3	1	1	1	2	2
<b>LO3</b>	4	1	3	1	1	1	2	2
<b>LO4</b>	4	1	3	1	1	1	2	2
<b>LO5</b>	5	2	1	2	1	1	2	3
<b>LO6</b>	5	1	2	1	1	1	1	1
<b>LO7</b>	5	2	2	1	2	1	2	3
<b>LO8</b>	5	1	1	1	2	2	2	2
<b>LO9</b>	5	1	3	1	3	2	3	3

## CARDIOVASCULAR SYSTEM

### AIM

1. To enable the student to gain knowledge by explaining the anatomical and microstructure of the circulatory systems in detail,
2. To explain the dynamics of circulatory systems,
3. To be able to define the general working principles and physiological characteristics of the circulatory systems,
4. To be able to count the examination methods of circulatory systems in medicine and laboratory applications

5. It is aimed to provide basic knowledge, skills and attitudes about circulatory and respiratory system disorders, diseases and clinic.

## **LEARNING OBJECTIVES**

**At the end of this committee;**

**In terms of Basic Sciences;**

1. Will be able to explain the general structure of the circulatory system anatomically and histologically,
2. Will be able to describe the functional events and their effects in the circulatory system from a physiological point of view,
3. Will be able to explain the causes and effects of disorders in the circulatory system biochemically,
4. Will be able to count the effective microorganisms in the circulatory system

**In terms of Clinical Sciences**

5. To be able to list the clinical signs and symptoms of circulatory disorders, to explain the effective factors in diagnosis,
6. Will be able to define common diseases in the circulatory system, explain their etiopathogenesis and pathological features.
7. Will be able to explain the pharmacological properties and protection methods of drugs used in the treatment of circulatory system diseases,

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>
<b>LO1</b>	4	1	1	1	1	1	1	2
<b>LO2</b>	4	1	1	1	1	1	2	2
<b>LO3</b>	4	1	1	1	1	1	2	2
<b>LO4</b>	4	1	1	1	1	1	2	2
<b>LO5</b>	5	1	4	1	2	2	2	2
<b>LO6</b>	5	1	4	1	2	2	2	3
<b>LO7</b>	5	1	4	1	2	1	3	3

## RESPIRATORY SYSTEM

### AIM

1. To enable the student to gain knowledge by explaining the anatomical and microstructure of the respiratory systems in detail,
2. To be able to explain the dynamics of respiratory systems,
3. To describe the general working principles and physiological characteristics of respiratory systems
4. To be able to count the examination methods of respiratory systems in medicine and laboratory applications
5. It is aimed to gain basic knowledge, skills and attitudes about respiratory system disorders, diseases and clinic.

### LEARNING OBJECTIVES

#### At the end of this committee;

1. Will be able to explain the general structure and localization of the respiratory systems and these structures in terms of anatomical and histological functions,
2. Will be able to describe the functional events and their effects in the respiratory systems in terms of physiological and biochemical,
3. Will be able to explain the causes and effects of respiratory system disorders histologically, biophysically, physiologically and biochemically,
4. will be able to count the clinical signs of respiratory disorders.
5. Will be able to explain common diseases in the respiratory system and define their etiopathogenesis.
6. Will be able to explain common diseases in otorhinolaryngology,
7. Will be able to explain the treatment and prevention methods of respiratory system diseases,
8. will be able to define the treatment and prevention methods of otorhinolaryngologic diseases.

#### Contribution of the learning outcomes of the course to the learning outcomes of the program

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
LO1	3	1	1	1	1	1	1	2
LO2	3	1	1	1	1	1	2	2
LO3	4	1	1	1	1	1	2	2
LO4	4	1	1	1	1	1	2	2
LO5	5	1	4	1	2	2	2	2
LO6	5	1	4	1	2	2	2	3
LO7	5	1	4	1	2	1	3	3
LO8	5	1	4	1	1	1	3	3

