



T.C.

LOKMAN HEKİM UNIVERSITY

FACULTY OF MEDICINE

PHASE – II

2024 – 2025 EDUCATION TEACHING GUIDE



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Basic Medical Sciences Coordinator	Prof. Şükrü Volkan Özgüven, MD
Clinical Medical Sciences Coordinator	Prof. Engin Dursun, MD
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Vice Coordinator (English)	Asst. Prof. Eda Sağiroğlu, PhD
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Member	Lecturer Müge Coşkun
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Vice Coordinator (Turkish)	Assoc. Prof. Fisun Sözen, MD
Vice Coordinator (English)	Asst. Prof. Tayfun Göktaş, MD



T.R.

LOKMAN HEKIM UNIVERSITY
FACULTY OF MEDICINE ENGLISH PROGRAMME

PHASE II COURSES and ECTS

CODE	COMPULSORY COURSES	T	P	C	ECTS
	Nervous System and Special Senses Course Board	93	24	117	10
	Circulatory, Respiratory and Lymphatic Systems Course Board	106	18	124	11
	Gastrointestinal System and Metabolism Course Board	98	16	114	9
	Urogenital and Endocrine Systems Course Board	82	14	96	8
	Basis of Diseases Course Board	98	10	108	10
	Scientific and Clinical Approaches – 2 Course Board	88	14	102	4
TOTAL ECTS COMPULSORY		565	96	661	52
CODE	ELECTIVE COURSES	T	P	C	ECTS
	Cinemedicine	2	0	2	4
	Nobel Prizes in Medicine and Their Inspiring Scientific Basis	2	0	2	4
	My Coffee Adventures	2	0	2	4
	Effects Of Chemical Biological And Radioactive Weaporse	2	0	2	4
	Healty Lifestyle	2	0	2	4
	Exploring Medical Research Abroad	2	0	2	4
TOTAL ECTS TO BE COLLECTED AS ELECTIVES					8
TOTAL ECTS TO BE COLLECTED IN PHASE II					60



PHASE II OBJECTIVES AND LEARNING OUTCOMES

Aim:

In this phase, the main subjects are the organ systems of the human body. The students will learn the anatomy, development, histology, physiology, biochemistry, molecular biology, immunology, and biophysics of the organs. They will also get the basic theoretical information about the microbial agents settled in these systems and will form the basis of clinical courses by making practical applications. It is aimed to enable them to recognize the infectious and non-infectious diseases of the systems and to have basic knowledge about diseases. This phase is also providing students to improve the ability of biostatistical analysis and reasoning on the data related to clinical applications.

Learning Objectives:

1. Defines the anatomy, embryology, histology, physiology, and biophysics of the structures that make up the nervous system and special senses.
2. Explains the embryological development, histological and anatomical structures, physiological and biophysical features, functions of the cells, tissues and organs that make up the circulatory system, respiratory system and lymphatic system, and the relations of these systems with each other, respectively.
3. Defines the anatomical, developmental, histological, physiological, and biochemical features of the urogenital and endocrine systems.
4. Defines the anatomical, developmental, histological, physiological, and biochemical features of the gastrointestinal system and metabolism.
5. Defines the common and different characteristics of microorganisms that can cause infectious diseases in the gastrointestinal tract.
6. Learns basic biochemical, biological, pharmacological, microbiological, and pathological information for clinical and laboratory evaluations of diseases.
7. Explains the basic biostatistics techniques on research in the field of health.



NERVOUS SYSTEM AND SPECIAL SENSES COURSE BOARD

PII – BOARD I

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Exam Feedback Lesson	2	0	2
	Chief Coordinator Feedback Lesson	2	0	2
	Introduction to Course Board Lesson	2	0	2
	Anatomy	34	10	44
	Biophysics	10	0	10
	Physiology	28	10	38
	Histology and Embryology	15	4	19
	TOTAL	93	24	117

AIMS AND LEARNING OBJECTIVES OF THE BOARD COURSES

Aim:

The aim of this course board; the embryological development, histological and anatomical structures, physiological properties, functions and mechanisms of the circulatory system, respiratory system and lymphatic system and the cells, tissues and organs that make up these systems, the interrelationships of these systems, To teach the responses to changes in internal and external environmental conditions, to teach the cells that make up the immune system, to comprehend the functions of these cells, to recognize infectious and non-infectious diseases of these systems and to have the knowledge and skills to understand clinical courses related to these systems.

Learning Objectives:

1. Explains the anatomy of the brain hemispheres.
2. Explains the afferent and efferent nerve pathways.
3. Explains the anatomy of cranial nerves.
4. Explains the anatomical structure of the brain membranes.
5. Provides information about epidural, subdural and subarachnoid spaces.
6. Explains the nervous system vessels by naming them.
7. Classifies the autonomic nervous system and defines its anatomical structures.
8. Explains the anatomy of the orbit and its contents by establishing a visual relationship.
9. Defines and explains the anatomy of the outer, middle and inner ear.
10. Explains the biophysical understanding of the concepts of compound action potentials and the process of recording techniques on the body.
11. Explains the biophysical principles of vision.
12. Physical basis of color vision, and the electrical energy conversion in photoreceptors.
13. Explains the basic physical concepts in hearing and biophysical processes in hearing sense.
14. Explains the general physiological characteristics of the central and sensory systems.
15. Describes the motor functions of the spinal cord and spinal cord reflexes.
16. Explains motor functions by associating them with the cerebellum and basal ganglia.
17. It establishes a physiological relationship between sensory, motor cortex and basal ganglia.
18. Explains the physiological processes occurring in the cerebral cortex.
19. List the physiological processes related to learning and memory.
20. Explains the limbic system by describing the thalamus and hypothalamus.
21. Provides information about the physiology of central vision.
22. Explains the physiology of hearing and balance.



23. Explains the physiological process that occurs in taste and smell.
24. Explains the theories about EEG and sleep physiology.
25. Explains the nervous system and their associated structures histologically at a microscopic level and shows them under a light microscope.
26. Explains the parts and structures of the ear and the histological features of special sensory areas related to hearing and balance at a microscopic level and shows them under a light microscope.
27. Explains the structure of the eye, its layers and histological features of vision-related cells at the microscopic level and shows it under a light microscope.
28. Explains the development of the nervous system, eyes and ears at the intrauterine level.

TOPICS

ANATOMY		
Topic	Type	Time
Introduction to the anatomy of the nervous system	Theoretical	1
Spinal cord	Theoretical	2
Truncus encephali (brain stem): Medulla oblongata (bulbus), pons	Theoretical	1
Truncus encephali (brain stem): Mesencephalon and cerebellum	Theoretical	2
Ascending tracts	Theoretical	1
Descending tracts	Theoretical	1
Diencephalon (midbrain): Thalamus, subthalamus, epithalamus, hypothalamus	Theoretical	2
Cranial nerves: I-VI	Theoretical	1
Cranial nerves: VII-XII	Theoretical	1
Vessels of the nervous system	Theoretical	2
Autonomic nervous system: Sympathetic system	Theoretical	1
Autonomic nervous system: Parasympathetic system	Theoretical	1
Meninges (cerebral membranes), sinus durae matrix (dural sinuses), cerebral ventricles and cerebrospinal fluid circulation	Theoretical	2
Epidural, subdural and subarachnoid spaces, cisternae subarachnoideae (subarachnoid cisterns)	Theoretical	1
Cerebral hemispheres: Cerebral cortex, brodmann areas	Theoretical	2
White matter and basal nuclei	Theoretical	2
Limbic system and the olfactory brain, sense of taste	Theoretical	2
Orbit and its contents	Theoretical	1
Eyeball and accessory structures of the eye	Theoretical	2
Visual pathways	Theoretical	1
Ear: External ear and middle ear	Theoretical	3
Ear: Internal ear, auditory and balance pathway	Theoretical	2
Anatomy practice: Spinal cord, diencephalon, brainstem, cerebellum, cranial nerves	Practical	2
Anatomy practice: Meninges, dural venous sinuses, ventricles of the brain, epiduralsubdural-subarachnoid spaces, and subarachnoid cisterns	Practical	2
Anatomy practice: Cerebral hemisphere, white matter, basal nuclei and the limbic system, vessels of the nervous system	Practical	2
Anatomy practice: Orbit and its contents, eyeball and accessory structures of the eye	Practical	2
Anatomy practice: Ear: External, middle, internal ear	Practical	2
BIOPHYSICS		
Topic	Type	Time



Biophysical understanding of the concept of compound action potential and the process of recording it from the body	Theoretical	1
Mechanisms of formation of synaptic auditoria's	Theoretical	1
Differences of pre- and post-synaptic potentials and action potentials	Theoretical	1
Biophysical principles of vision	Theoretical	1
Physical basis of color vision	Theoretical	1
Photoreceptors and electrophysiological processes	Theoretical	1
Basic physical concepts in hearing	Theoretical	1
Biophysical processes in the sense of hearing	Theoretical	1
Formation and characteristics of brain potentials	Theoretical	1
Spontaneous and stimulated electrical activities of the brain (EEG)	Theoretical	1

PHYSIOLOGY

Topic	Type	Time
Introduction to central nervous system	Theoretical	1
General properties of sensory system	Theoretical	1
Motor functions of the spinal cord, spinal reflexes	Theoretical	1
Somatic senses	Theoretical	3
Control of motor function by the cortex	Theoretical	2
Cerebellum and motor functions	Theoretical	2
Basal ganglia and motor functions	Theoretical	1
Cerebral cortex	Theoretical	1
Learning and memory	Theoretical	2
Autonomic nervous system and adrenal medulla	Theoretical	2
Thalamus, hypothalamus, and limbic system	Theoretical	2
Physiology of vision	Theoretical	2
Central processes of vision	Theoretical	1
Physiology of hearing	Theoretical	2
Physiology of balance	Theoretical	2
Physiology of taste and smell	Theoretical	2
Brain activity states – sleep, brain waves	Theoretical	1
Physiological Practice: Spinal cord reflexes	Practical	2
Physiological Practice: Reaction time	Practical	2
Physiological Practice: EEG	Practical	2
Physiological Practice: Vision tests	Practical	2
Physiological Practice: Hearing tests	Practical	2

HISTOLOGY and EMBRYOLOGY

Topic	Type	Time
Histology of central nervous system	Theoretical	3
Practice: Histology of central nervous system	Practical	2
Histology of peripheral nervous system and sensory receptors	Theoretical	3
Development of nervous system	Theoretical	3
Development and histology of eye globes and lids	Theoretical	3
Development and histology of ears	Theoretical	3
Histology Practice: Histology of peripheral nervous system and sensory organs	Practical	2



CIRCULATORY, RESPIRATORY AND LYMPHATIC SYSTEMS COURSE BOARD PII – BOARD II

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Exam Feedback Lesson	2	0	2
	Chief Coordinator Feedback Lesson	2	0	2
	Introduction to Course Board Lesson	2	0	2
	Anatomy	17	6	23
	Biophysics	12	0	12
	Physiology	31	6	37
	Histology and Embryology	22	6	28
	Medical Microbiology	18	0	18
	TOTAL	106	18	124

AIMS AND LEARNING OBJECTIVES OF THE COURSE BOARD

Aim:

This course board aims to explain the human circulatory system, respiratory system and lymphatic system and embryological development of cells, tissues and organs related with these systems, histological and anatomical structures, physiological characteristics, functions and mechanisms and their responses to changes in internal and external environmental conditions. It also aims to understand the infectious and non-infectious diseases related with these systems, and to have ability to interpret all basic sciences to the clinical courses.

Learning Objectives:

1. Explains the anatomy of the lymphatic system.
2. Explains the heart and pericardium anatomically.
3. Explains fetal, pulmonary and systemic circulation anatomically.
4. Explains the anatomy of the thoracic wall and the parts of the thoracic cavity.
5. Explains the anatomy of the lung, pleura and respiratory tract.
6. Explains the biophysical basis of the formation of the cardiac dipole and ECG and the biophysical properties of the heart muscle.
7. Explains the viscosity properties, elastic properties and dynamic processes of biological materials as solids and fluids.
8. Explains the concepts of surface tension, resistance, fluidity and compliance..
9. Explains the electrical and mechanical functions of the heart according to the physiological properties of the heart muscle.
10. Explains the relationship between ECG, pulse wave and heart sounds during the cardiac cycle.
11. Explains the functions of vascular systems with local and humoral control of blood flow.
12. Describe the physiologic control of arterial pressure.
13. Explains the functions of the respiratory tract and the forces that provide inspiration and expiration.
14. Explains the relationship between ventilation and perfusion in the lungs.
15. Explains the regulation of respiration physiologically.
16. Explains and applies respiratory function tests.
17. Explains the effect of changes in environmental conditions such as atmospheric pressure and temperature on blood, circulatory and respiratory systems.
18. Explains the histologic features of the heart by discussing them under light microscope.



19. Explains the vessels by classifying them histologically and comparing their histology.
20. Explains the embryologic development of the respiratory system at the organ level according to its stages.
21. Explains the structures that make up the respiratory system by evaluating them according to their histologic features.
22. Explains the development of diaphragm and body cavities.
23. Explains the properties of the organs and tissues of the lymphatic system by showing them under the light microscope.
24. Explains the development and developmental anomalies of the pharyngeal arches and face.
25. Explains the concepts of antigen, antibody, MHC and their functions in immune response.
26. Gives information about the formation of immune response, types and functions of immune response.
27. Counts hypersensitivity reactions and explains their immunologic basis.
28. Explains the immunogenetic structure of the lymph system.
29. Counts the microbiology of mycobacteria, microbiological diagnostic tests in the diagnosis of pulmonary tuberculosis.
30. Explains the mechanism of mycobacteria causing pulmonary tuberculosis and their resistance to antimycobacterials.
31. Counts microbiologic diagnostic tests by explaining HIV virology involving immune system cells.
32. Explains the mechanism of HIV disease formation, AIDS prevention and control methods.

TOPICS

ANATOMY		
Topic	Type	Time
Lymphatic system and spleen	Theoretical	2
Heart and pericardium	Theoretical	2
Heart and pericardium, main vessels, fetal circulation, pulmonary circulation, systemic circulation	Theoretical	2
Thoracic wall and diaphragm	Theoretical	2
Root of the neck	Theoretical	2
The nose and paranasal sinuses	Theoretical	2
Larynx	Theoretical	2
Trachea and lungs	Theoretical	2
Mediastinum	Theoretical	1
Anatomy practice: Heart, pericardium, and main vessels	Practical	2
Anatomy practice: Thoracic wall, diaphragm, and root of neck	Practical	2
Anatomy practice: The nose, paranasal sinuses, larynx, trachea, lungs, mediastinum	Practical	2
BIOPHYSICS		
Topic	Type	Time
Biophysical properties of the heart muscle and contraction – relaxation processes	Theoretical	2
Biophysical bases of the formation of the heart dipole and ECGs	Theoretical	1
Biophysical discussion of the concepts of inotropy, preload and afterload in the heart	Theoretical	2
Circulation dynamics: Bernoulli and poiseuille principles	Theoretical	1
Properties of blood as fluid and the concept of viscosity	Theoretical	1
Features of flexibility in the circulatory system	Theoretical	1



Biophysical properties of the respiratory system	Theoretical	1
Factors affecting respiratory dynamics	Theoretical	1
Alveolar mechanics and surface tension processes	Theoretical	1
Respiratory work, concepts of resistance and compliance	Theoretical	1

PHYSIOLOGY

Topic	Type	Time
Physiological features of the heart muscle	Theoretical	2
Electrical and mechanical properties of cardiac muscle	Theoretical	1
Heart cycle	Theoretical	2
Regulation of cardiac activity	Theoretical	1
Electrocardiogram (ECG)	Theoretical	2
Principles of hemodynamics	Theoretical	3
Functions of vascular systems	Theoretical	2
Local and humoral control of blood flow	Theoretical	1
Neural regulation of circulation	Theoretical	1
Control of arterial pressure	Theoretical	2
General information about respiratory physiology	Theoretical	1
Alveolar ventilation	Theoretical	2
Ventilation – perfusion	Theoretical	2
Transport of oxygen and carbon dioxide	Theoretical	2
Regulation of respiration	Theoretical	2
Pulmonary function tests	Theoretical	2
Regulation of respiration in extreme environments	Theoretical	2
Respiratory and cardiovascular regulation during exercise	Theoretical	1
Physiological Practice: Electrocardiogram (ECG)	Practical	2
Physiological Practice: Physiological Measurement of blood pressure and heart sounds	Practical	2
Physiological Practice: Pulmonary function tests	Practical	2

HISTOLOGY and EMBRYOLOGY

Topic	Type	Time
Histology of immune system cells and primary lymphoid organs	Theoretical	3
Histology of secondary lymphoid organs and tissues	Theoretical	3
Histology Practice: Histology of primary lymphoid organs	Practical	1
Histology Practice: Histology of secondary lymphoid organs	Practical	1
Histology of heart and vessels	Theoretical	3
Histology Practice: Histology of heart and vessels	Practical	2
Development of heart	Theoretical	2
Development of vessels and fetal circulation	Theoretical	2
Development of pharyngeal complex	Theoretical	2
Development of face and palate	Theoretical	2
Histology of respiratory system	Theoretical	3
Development of respiratory system	Theoretical	1
Histology Practice: Histology of respiratory system	Practical	2
Development of diaphragm, pericardium, and pleura	Theoretical	1

MEDICAL MICROBIOLOGY

Topic	Type	Time
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Immune system organs	Theoretical	1
Immune response stages	Theoretical	1
Cytokines	Theoretical	1
Developmental stages of immune cells	Theoretical	1
Immune cells-1 (lymphoid series)	Theoretical	1
Immune cells-2 (myeloid series, neutrophils, acute inflammation)	Theoretical	1
Immune cells-3 (myeloid series, other granulocytes, monocyte- macrophage and dendritic cells)	Theoretical	1
Antigen presenting cells	Theoretical	1
Antigen, immunogen	Theoretical	1
Antibodies	Theoretical	1
Complement system	Theoretical	1
MHC molecules	Theoretical	1
Endogenous and exogenous antigen presentation	Theoretical	1
Hypersensitivity reactions	Theoretical	2
Mycobacteriaceae	Theoretical	2
Retroviridae	Theoretical	1

GASTROINTESTINAL SYSTEM AND METABOLISM COURSE BOARD P II – BOARD III

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Exam Feedback Lesson	2	0	2
	Chief Coordinator Feedback Lesson	2	0	2
	Introduction to Course Board Lesson	2	0	2
	Anatomy	20	4	24
	Physiology	16	0	16
	Histology and Embryology	14	8	22
	Medical Biochemistry	22	2	24
	Medical Microbiology	20	2	22
	TOTAL	98	16	114

AIMS AND LEARNING OBJECTIVES OF THE COURSE BOARD

Aim:

In this course board, students will learn the anatomy, development, histology, physiology, and biochemistry of the gastrointestinal system and understand the basics of metabolism. It also Explains the microorganisms that can cause infectious diseases in the system. The aim is to ensure that students have the knowledge and skills to understand clinical courses related to the system.

Learning Objectives:

1. Explains the anatomy of the mouth with tongue, teeth and soft palate.
2. Describes the anatomy of the pharynx, oesophagus and gaster (stomach).
3. Describes the anatomy of the anterior abdominal wall and posterior abdominal wall.
4. Describe the anatomical position of the intestinum tenue and intestinum crassum.
5. Explains the pancreas with its anatomical neighbors.



6. Explains the portal system with examples.
7. Describes the physiological control of the gastrointestinal system and establishes its relationship with hormones.
8. Explains the physiology of chewing and swallowing.
9. Explains the physiological processes occurring in the stomach.
10. Explains the functions of the small and large intestine in digestion.
11. Explains the functions of the liver physiologically.
12. Describes the role of the pancreas in digestion.
13. Gives information about digestion and absorption physiologically in the gastrointestinal tract.
14. Explains the regulation of food intake.
15. Explains the histological features of the structures in the oral cavity and shows them in the light microscope.
16. Explains the organs that make up the upper and lower digestive system by classifying them according to their histological features.
17. Describes the structure of the glands of the digestive system and the histological features of the related cells.
18. Explains the properties of the organs and tissues of the digestive system by showing them at the light microscope level.
19. Explains the development of the digestive system together with the development of glands.
20. Explains lipases involved in the digestion of lipids, their functions and properties and enumerates the enzymes involved in the digestion of carbohydrates.
21. Explains the mechanism of action and metabolic effects of insulin and glucagon.
22. Explains the products of protein metabolism and their metabolism, urea synthesis steps, activating / inhibiting compounds, glycogenic and ketogenic amino acids and essential and non-essential amino acids.
23. Counts the synthesis steps and metabolism disorders of purine and pyrimidine nucleotides.
24. Explains the mechanism of absorption of amino acids and small peptides from the intestinal lumen, Explains the pancreatic and intestinal enzymes and hormones involved in the digestion of proteins and their mechanisms of action, and explains the events that occur in the stomach during the digestion of proteins.
25. Explains the metabolic events observed in satiety and fasting and metabolic syndrome.
26. Defines inorganic and organic compounds, essential and toxic elements and explains the metabolism of inorganic compounds.
27. Explains the functions of glutathione, the main xenobiotics, the toxic effects of xenobiotics and the reactions in which mitochondrial cytochrome p450 systems are used.
28. Counts the microorganisms causing gastroenteritis/diarrhea and explains their microbiology and disease-causing mechanisms.
29. Counts laboratory diagnostic tests and gives information about prevention and control.
30. Explains the microscopic evaluation of fecal direct smear and explains its clinical importance.
31. Counts gastrointestinal intestinal parasites and explains their microbiology and fecal microscopy.
32. Identifies intestinal parasites in stool direct smear.
33. Describes the microorganism that may be the causative agent of hemolytic uremic syndrome and microbiological diagnostic test.
34. Explains the microbiology of acute hepatitis viruses and counts microbiologic diagnostic tests.
35. Interpret microbiologic test results and list prevention and control methods.
36. Explains the existence, characteristics, importance of human microbiota in health and diseases and tells its anatomical location.
37. Describe the virulence mechanisms of microorganisms and explains their role in pathogenesis.

TOPICS



ANATOMY		
Topic	Type	Time
Mouth anatomy, tongue, teeth, soft palate, and salivary glands	Theoretical	2
Temporal fossa, parotid region, and salivary glands	Theoretical	1
Infratemporal fossa, pterygopalatine fossa, and masticatory muscles	Theoretical	2
Pharynx, oesophagus, and stomach	Theoretical	2
Anterior abdominal wall, inguinal canal, rectus sheath	Theoretical	2
Peritoneum, omental bursa, greater omentum, and lesser omentum	Theoretical	2
Small intestine	Theoretical	1
Large intestine and anal canal	Theoretical	2
Liver, gallbladder, and biliary tract	Theoretical	2
Pancreas	Theoretical	1
Posterior abdominal wall and main vessels, spinal nerve plexuses	Theoretical	2
The portal system, porto-caval anastomosis, and cava-caval anastomosis	Theoretical	1
Anatomy practice: Temporal fossa, parotid region, salivary glands, infratemporal fossa, pterygopalatine fossa, and masticatory muscles	Practical	1
Anatomy practice: Mouth anatomy, tongue, teeth, soft palate, salivary glands, pharynx, oesophagus, and stomach	Practical	1
Anatomy practice: Anterior abdominal wall, inguinal canal, rectus sheath, peritoneum, omental bursa, greater omentum, and lesser omentum	Practical	1
Anatomy practice: Small intestine, large intestine, anal canal, liver, gall bladder, biliary tract, pancreas, posterior abdominal wall, and main vessels	Practical	1
PHYSIOLOGY		
Topic	Type	Time
General principles, electrical activity, and motor functions	Theoretical	2
General principles: GIS control and hormones	Theoretical	2
Chewing, swallowing, functions of esophagus and stomach	Theoretical	2
Functions of small and large intestine	Theoretical	2
Exocrine functions of the pancreas	Theoretical	2
Functions of the liver	Theoretical	2
Digestion and absorption in the gastrointestinal tract	Theoretical	2
Regulation of food intake	Theoretical	2
MEDICAL BIOCHEMISTRY		
Topic	Type	Time
Metabolism of pancreatic gland hormones	Theoretical	1
Carbohydrate metabolism and regulation	Theoretical	4
Lipid metabolism	Theoretical	4
Amino acid and protein metabolism	Theoretical	4
Integration of metabolism: biochemical response in fasting and satiety	Theoretical	2
Ethanol Metabolism	Theoretical	1
Metabolism of inorganic compounds	Theoretical	2
Detoxification mechanisms	Theoretical	2
Metabolism of vitamins	Theoretical	2
Lab: Blood glucose analysis	Practical	2
HISTOLOGY and EMBRYOLOGY		



Topic	Type	Time
Histology of oral organs and structures	Theoretical	3
Practice: Histology of oral organs and structures	Practical	2
Histology of digestive tract	Theoretical	4
Practice: Histology of upper digestive tract	Practical	2
Practice: Histology of lower digestive tract	Practical	2
Histology of liver	Theoretical	2
Histology of gallbladder and pancreas	Theoretical	1
Practice: Histology of liver, gallbladder, and pancreas	Practical	2
Development of digestive system	Theoretical	4

MEDICAL MICROBIOLOGY

Topic	Type	Time
Enterobacterales	Theoretical	3
Oxidase positive curved bacilli (Vibrionaceae, Campylobacteraceae)	Theoretical	1
Primary hepatotropic viruses (HAV, HBV, HCV, HDV and HEV)	Theoretical	2
Introduction to general parasitology	Theoretical	1
Protozoa	Theoretical	4
Nematodes	Theoretical	2
Cestodes	Theoretical	2
Trematodes	Theoretical	2
Microbiota	Theoretical	1
Microbial pathogenesis	Theoretical	2
Microbiology practice: examination of parasites	Practical	2

UROGENITAL AND ENDOCRINE SYSTEMS COURSE BOARD PII – BOARD IV

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Exam Feedback Lesson	2	0	2
	Chief Coordinator Feedback Lesson	2	0	2
	Introduction to Course Board Lesson	2	0	2
	Anatomy	13	4	17
	Physiology	33	0	33
	Histology and Embryology	18	8	26
	Medical Biochemistry	12	2	14
	TOTAL	82	14	96

AIMS AND LEARNING OBJECTIVES OF THE COURSE BOARD

Aim:

The aim of the course board is to ensure that the urogenital and endocrine systems are learned with a holistic approach in terms of anatomical, developmental, histological, physiological, and biochemical, and to have the knowledge and skill levels to understand the clinical lessons about these systems.

Learning Objectives:

1. Explains the anatomy of kidney and ureter.
2. Describes the vesica urinaria and urethra anatomically.
3. Explains the anatomy of male genital organs.
4. Explains the anatomy of the female genital organs and breast.



5. Describes the thyroid and parathyroid glands anatomically.
6. Explains the suprarenal glands with their anatomical neighborhood.
7. Explains the hypophysis and glandula pinealis anatomically.
8. Explains tubular reabsorption and secretion by explaining glomerular filtration.
9. Gives information about the concentration and dilution of urine.
10. Describes the physiological events that occur in the regulation of fluid and electrolyte balance in the body.
11. Describe acid-base balance and define acidosis and alkalosis.
12. Establishes the functional relationship between pituitary and hypothalamus.
13. Describes the physiological functions of adenohypophysis and neurohypophysis hormones.
14. Gives information about the physiology of thyroid hormones.
15. Explains the physiology of hormones related to calcium and phosphorus.
16. Describes the physiological events occurring in the endocrine pancreas.
17. Describes the physiologic effects of adrenal cortex and medulla hormones.
18. Describes the physiology of gonadotropic hormone and puberty in relation to male and female gonadal hormones.
19. Describes the physiology of reproduction in relation to the physiology of pregnancy and lactation.
20. Explains the development of the kidney and excretory tract.
21. Describes the histologic features of organs, tissues and cells related to the urinary system.
22. Explains the histologic features of the organs and tissues of the urinary system by discussing them under light microscope.
23. Explains the embryologic development of male genital organs.
24. Describes the histologic features of the organs, tissues and cells of the male genital system.
25. Explains the properties of male genital system organs and tissues by discussing them under light microscope.
26. Explains the embryologic development of female genital organs.
27. Describes the histologic features of organs, tissues and cells related to the female genital system.
28. Describes the organs and tissues related to the female genital system by showing them under a light microscope.
29. Describe the structure and functions of the kidney and its functions of excretion, reabsorption, regulation, electrolyte and water homeostasis and endocrine functions.
30. Explains the endocrine system in general, the concept of hormone, endocrine, paracrine, autocrine action and negative feedback.
31. Makes the classification of hormones.
32. Explains the mechanisms of action of hormones, signal transduction in metabolism and the concept of second messenger.
33. List the effects of cortisol and aldosterone.
34. Explains the steps of catecholamine synthesis with enzyme - coenzyme respectively.
35. Explains hypothalamic, pituitary and pineal hormones by counting them.

TOPICS

ANATOMY		
Topic	Type	Time
Kidney and ureter	Theoretical	2
Urinary bladder and urethra	Theoretical	2
Pelvic diaphragm and perineum	Theoretical	2
Male genital organs	Theoretical	2
Female genital organs and breast anatomy	Theoretical	2
Thyroid and parathyroid glands, suprarenal glands	Theoretical	1
Pituitary gland and pineal gland	Theoretical	2



Anatomy practice: Kidney, ureter, urinary bladder, and urethra	Practical	2
Anatomy practice: Pelvic diaphragm and perineum, male and female genital organs, endocrine glands	Practical	2
PHYSIOLOGY		
Topic	Type	Time
Introduction to renal physiology	Theoretical	2
Glomerular filtration	Theoretical	2
Tubular reabsorption and secretion	Theoretical	2
Concentration and dilution of urine	Theoretical	2
Water and electrolyte balance	Theoretical	1
Micturition	Theoretical	1
Acid-base balance	Theoretical	2
Introduction to the endocrine system	Theoretical	1
Hypothalamus – pituitary functional relationship	Theoretical	1
Physiology of pituitary hormones	Theoretical	3
Physiology of thyroid hormones	Theoretical	2
Hormonal regulation of calcium and phosphate	Theoretical	2
Endocrine functions of the pancreas	Theoretical	2
Physiology of adrenal gland hormones	Theoretical	2
Physiology of adipose tissue-derived hormones	Theoretical	1
Gonadotropin hormones and physiology of puberty	Theoretical	1
Physiology of male reproductive system	Theoretical	2
Physiology of female reproductive system	Theoretical	2
Physiology of pregnancy and lactation	Theoretical	2
MEDICAL BIOCHEMISTRY		
Topic	Type	Time
Kidney functions and electrolyte balance	Theoretical	2
Hormones and their action mechanisms - I	Theoretical	2
Hormones and their action mechanisms - II	Theoretical	2
Hypothalamus, pituitary, and pineal hormones	Theoretical	2
Thyroid gland hormones and metabolism	Theoretical	2
Metabolism of adrenal gland hormones	Theoretical	2
Lab: Complete Urine Analysis	Practical	2
HISTOLOGY and EMBRYOLOGY		
Topic	Type	Time
Histology of kidneys and urinary tracts	Theoretical	3
Practice: Histology of urinary system	Practical	2
Histology of male genital system	Theoretical	3
Practice: Histology of male genital system	Practical	2
Histology of female genital system	Theoretical	3
Practice: Histology of female genital system	Practical	2
Development of urinary system	Theoretical	2
Development of genital system	Theoretical	3
Development and histology of hypophysis and epiphysis	Theoretical	2
Development and histology of thyroid, parathyroid, adrenal glands and endocrine pancreas	Theoretical	2
Practice: Histology of endocrine system I	Practical	1
Practice: Histology of endocrine system II	Practical	1



BASICS OF DISEASES COURSE COURSE BOARD

PII – BOARD V

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Exam Feedback Lesson	2	0	2
	Chief Coordinator Feedback Lesson	2	0	2
	Introduction to Course Board Lesson	2	0	2
	Biophysics	4	0	4
	Medical Biochemistry	4	0	4
	Medical Biology	11	0	11
	Medical Pharmacology	23	0	23
	Medical Microbiology	30	10	40
	Medical Pathology	20	0	20
	TOTAL	98	10	108

AIMS AND LEARNING OBJECTIVES OF THE COURSE BOARD

Aim:

The aim of this course board is to explain the basic biochemical, molecular, pharmacological, microbiological, and pathological information for clinical and laboratory evaluations of diseases and to provide the knowledge and skill levels necessary to understand the clinical courses planned for the next medical education stages.

Learning Objectives:

1. Explains the electrical current and electrical applications used in biological samples.
2. Explains radiation and application of radiation to biological systems.
3. Explains the mechanism of poststreptococcal diseases and tells the diagnostic test.
4. Describes reactive oxygen and reactive nitrogen species.
5. Explains the concept of oxidative stress, pathologic conditions involving free radicals and antioxidants.
6. Explains the difference between serum and plasma by explaining the presence of protein in plasma.
7. Explains acute phase response and acute phase reactants.
8. Explains what medicines are.
9. Explains by counting the forms in which drugs can be applied.
10. Explains drug administration methods by listing them.
11. Describes the events that occur in the body as a result of drug applications, absorption, distribution, biotransformation and elimination.
12. Explains the mechanisms of action of drugs.
13. Explains the mechanism of formation of poststreptococcal diseases and tells the diagnostic tests.
14. Counts the microorganisms causing rash infections and microbiological diagnostic tests.
15. Counts the agents of skin and soft tissue infections and abscesses.
16. Describes the microbiological diagnostic tests and disease-causing mechanisms of meningococcal disease agents.
17. Counts the microorganisms that can be the causative agents of urinary tract infections, explains the virulence factors and microbiologic laboratory diagnosis of urinary infections.
18. Explains the growth characteristics of anaerobic bacteria and the appropriate sampling conditions for anaerobic culture.
19. Counts the microorganisms causing food poisoning.



20. Explains the microbiology and microbiologic diagnostic tests of Clostridium species causing gas gangrene.
21. Describes the microbiology and disease-causing mechanism of tetanus bacillus and describes its microscopic appearance.
22. Explains the microbiology of Brucella and prevention methods and control of brucellosis.
23. Describes the microbiologic diagnostic tests for Bacillus anthracis.
24. Explains the microbiology of diphtheria, whooping cough and Legionella bacilli by explaining the mechanisms of disease formation.
25. Explains the disease-causing mechanisms, microbiological diagnostic tests and control and prevention methods of mumps, measles, influenza and rabies virus.
26. Counts sexually and congenitally transmitted microorganisms and microbiological diagnostic tests.
27. Describes the microorganisms that can cause conjunctivitis and keratitis.
28. Classifies mycoses and explains the microbiology of their agents.
29. Explains the causes of cell damage together with their mechanisms and morphology.
30. Discusses necrosis and apoptosis by comparing them.
31. Explains cellular aging by explaining intracellular accumulations.
32. Explains acute inflammation and chronic inflammation.
33. Gives information about hemodynamic disorders and their types.
34. Defines autoimmune diseases and hypersensitivity reactions.
35. Discuss and explains the general principles of infection pathology.

TOPICS

BIOPHYSICS		
Topic	Type	Time
Electric current, biological effects and safety	Theoretical	1
Bioelectric applications	Theoretical	1
Description of radiation, its main features	Theoretical	1
Biological effects of radiation	Theoretical	1
BIOCHEMISTRY		
Topic	Type	Time
Reactive oxygen molecules and oxidative stress	Theoretical	2
Plasma proteins and acute phase response	Theoretical	2
MEDICAL MICROBIOLOGY		
Topic	Type	Time
Collection and transport of microbiological samples	Theoretical	2
Gram-positive cocci (Staphylococci)	Theoretical	1
Gram-positive cocci (Streptococci)	Theoretical	2
Anaerobiosis and anaerobic bacteria (Clostridium and the other anaerobes)	Theoretical	2
Actinomyces ve Nocardia	Theoretical	1
Gram-positive bacilli (Bacillus, Listeria, Corynebacterium and other coryneform bacilli)	Theoretical	1
Gram-negative diplococci (Neisseria, Moraxella)	Theoretical	1
Gram-negative coccobacilli (Haemophilus, Pasteurella, Brucella, Bordetella, Francisella)	Theoretical	2
Non-fermentative gram (-) bacilli (Pseudomonas, Burkholderia, Stenotrophomonas, Acinetobacter) and various gram (-) bacilli (Eikenella, Bartonella, Klebsiella granulomatis, Gardnerella, Legionella)	Theoretical	2



Spirochete, Rickettsia, Chlamydiae and Mycoplasmas	Theoretical	2
Introduction to general virology	Theoretical	2
DNA viruses (herpesviruses, poxviruses, papovaviruses, adenovirus and parvovirus)	Theoretical	3
Negative-sense RNA viruses (myxoviruses, bunyaviruses, rabies virus, filoviruses and lymphocytic choriomeningitis virus)	Theoretical	3
Positive-sense RNA viruses (picornaviruses, norovirus, rotavirus, coronavirus, rubella virus and flaviviruses)	Theoretical	2
General mycology, superficial and cutaneous mycosis agents, subcutaneous mycosis agents	Theoretical	2
Endemic and opportunistic agents of mycosis	Theoretical	2
Microbiology practice: Bacteriological identification methods	Practical	2
Microbiology practice: Diagnostic methods of gram-positive bacteria	Practical	2
Microbiology practice: Diagnostic methods of gram-negative bacteria	Practical	2
Microbiology practice: Methods of diagnosis of bacteria with different characteristics	Practical	2
Microbiology practice: Examination of fungi	Practical	2
MEDICAL BIOLOGY		
Topic	Type	Time
Heredity models	Theoretical	2
Molecular biology of cancer	Theoretical	2
Cancer cell genome and microenvironment	Theoretical	1
Structure of telomerase and its connection with aging and cancer	Theoretical	1
Molecular biology of immunity	Theoretical	1
Population genetics	Theoretical	1
Gene mapping	Theoretical	1
Genotoxicity	Theoretical	1
Genetic polymorphism	Theoretical	1
MEDICAL PHARMACOLOGY		
Topic	Type	Time
Introduction to pharmacology	Theoretical	1
Pharmaceutical forms of drugs	Theoretical	1
Routes of drug administration	Theoretical	1
Drug action mechanisms and pharmacodynamics	Theoretical	1
Pharmacokinetics of drugs: absorption, distribution, biotransformation, and elimination	Theoretical	4
Drug receptors and pharmacodynamic effects	Theoretical	1
Dose (concentration) – pharmacological effect relationship	Theoretical	2
Factors that change the effect of drugs	Theoretical	2
Pharmacokinetic and pharmacodynamic interactions between drugs	Theoretical	2
Unwanted and toxic effects of drugs	Theoretical	1
Pharmacology of autacoids and gaseous autacoids: EDRF, EDHF, NO	Theoretical	1
Amine autacoids: 5-hydroxytryptamine (serotonin), histamine	Theoretical	2
Peptide autacoids: Angiotensins, kinins, endothelins	Theoretical	2
Lipid autacoids: Eicosanoids, PAF	Theoretical	2
MEDICAL PATHOLOGY		
Topic	Type	Time



Introduction to pathology	Theoretical	2
Cellular adaptation and injury	Theoretical	2
Necrosis and apoptosis	Theoretical	2
Cellular aging and cellular accumulations	Theoretical	1
Acute inflammation and mediators	Theoretical	2
Chronic inflammation and wound healing	Theoretical	2
Hemodynamic disorders-edema and hemorage/hemostasis and thrombosis	Theoretical	2
Hemodynamic disorders- emboli, infarct and shock	Theoretical	1
Autoimmune diseases and hypersensitivity Reactions	Theoretical	2
General principles of infection pathology	Theoretical	1
Amiloidosis	Theoretical	1
Introduction to neoplasia	Theoretical	2

SCIENTIFIC AND CLINICAL APPROACHES – 2 COURSE BOARD PII – BOARD VI

CODE OF THE BOARD COURSES	NAME OF THE BOARD COURSES	THEORETICAL HOURS	PRACTICAL HOURS	SUM OF HOURS
	Scientific Research Methods and Biostatistics	24	4	28
	Clinical Overview II	64	0	64
	Clinical Skill II	0	10	10
	TOTAL	88	14	102

AIMS AND LEARNING OBJECTIVES OF THE BOARD COURSES

Aim:

The aim of this course board is to gain basic medical skills, scientific and clinical approach skills, and awareness of medicine, and to develop evidence-based analytical skills.

Learning Objectives:

1. Learns the basic professional skill techniques required in clinical practice.
2. Describes the techniques applied in basic life support, respectively.
3. Defines how to make wound dressing.
4. Determines the fracture with the correct technique.
5. Learns to wear cervical collar with correct technique.
6. Learns the technique of applying elastic bandage in traumatic patients.
7. Learns the patient positions and technique for the blood pressure measurement.
8. Learns the techniques of measuring fever and counting respiratory rate.
9. Explains how to control bleeding in patients with arterial and venous bleeding.
10. Explains the technique of measuring blood glucose with a glucometer, respectively.
11. Explains how to give an intravenous (IV) injection to a patient.
12. Lists the techniques of hand washing and wearing gloves.
13. Describes organ systems in connection with relevant clinical information.
14. Explains the disease and clinical picture.
15. Defines the sources of access to information.



16. Learns to prepare scientific research in accordance with research principles.
1. Understands the importance of data in medical and health sciences, defines data types, explains the importance of biostatistics in health research, and summarizes the collected data using different measures depending on the type of data.
2. Calculates appropriate descriptive measures to show the characteristics of the data, constructs tables and interpret the tables, draw graphs, and interpret the graphs.
3. Selects the appropriate hypothesis testing method, tests the hypothesis, interprets the results and makes inferences about one or more populations.
4. Calculates, draws and interprets performance measures for tests used for diagnostic purposes.
5. Enters or transfers data to a commonly used software, makes statistical calculations, draws graphs and constructs tables according to the needs.
6. Selects appropriate test method and interprets the results.
7. Uses appropriate measures to evaluate the performance of diagnostic tests.
8. Selects appropriate performance measure according to the type of test result and interprets the accuracy of diagnosis.
9. Define and classify dyslipidemia, list the names of sphingolipidoses and the missing enzymes and apolipoproteins with their functions.
10. Explains the integration of metabolism and special metabolic conditions.
11. List the clinical findings and causes of adrenal hypofunction, Cushing's syndrome, Addison's disease, Conn's syndrome.
12. Explains the clinical conditions observed in ACTH, TSH, FSH and LH, growth hormone, prolactin, ADH excess and deficiency and hypothalamo – pituitary system diseases.
13. Explains the term azotemia and counts its types and explains acute and chronic renal failure with its causes.
14. Explains thyroid gland diseases.
15. Explains the clinical importance of oxidative phosphorylation and energy homeostasis.
16. Explains the basics of clinical enzymology.
17. Explains cancer biomarkers and associated clinical manifestations.

TOPICS

SCIENTIFIC RESEARCH METHODS AND BIOSTATISTICS (SRMB)		
Topic	Type	Time
1. Nervous System And Special Senses Course Board	Type	Time
SCA2-SRMB: Purpose of scientific research	Theoretical	2
SCA2-SRMB: Research methods of scientific research	Theoretical	2
2. Circulatory, Respiratory and Lymphatic Systems Course Board	Type	Time
SCA2-SRMB: Preparing a scientific project in health sciences: Preparing for the project writing and planning the project	Theoretical	1
SCA2-SRMB: Creation of the project team, determination of the project method, necessary permissions for the project	Theoretical	1
SCA2-COV Medical Microbiology: Vaccines	Theoretical	2
3. Gastrointestinal System and Metabolism Course Board	Type	Time
SCA2-SRMB: Writing the project proposal	Theoretical	1
SCA2-SRMB: Mistakes made in the project proposal and solution suggestions	Theoretical	1
4. Urogenital and Endocrine Systems Course Board	Type	Time



SCA2-SRM Biostatistics: Introduction to biostatistics, data, variable. Types of variables, Descriptive statistics: Measures of central tendency	Theoretical	2
SCA2-SRM Biostatistics: Descriptive statistics: Measures of location and measures of variation	Theoretical	2
SCA2-SRM Biostatistics: Frequency tables, cross tables. Graphs with one, two or more variables.	Theoretical	2
SCA2-SRM Biostatistics: Biostatistics Practice	Practical	2
5. Basics of Diseases Course Board	Type	Time
SCA2-SRM Biostatistics: Inferential statistics, estimation, normal distribution, introduction to hypothesis testing	Theoretical	2
SCA2-SRM Biostatistics: One sample test of hypothesis	Theoretical	2
SCA2-SRM Biostatistics: Two sample test of hypothesis	Theoretical	2
SCA2-SRM Biostatistics: K sample ($k > 2$) test of hypothesis	Theoretical	2
SCA2-SRM Biostatistics: Statistical evaluation of diagnostic tests and ROC analysis	Theoretical	2
SCA2-SRM Biostatistics: Biostatistics Practice	Practical	2
CLINICAL OVERVIEW II (COV II)		
1. Nervous System And Special Senses Course Board	Type	Time
SCA2-COV Anatomy: Spinal cord lesions	Theoretical	1
SCA2-COV Anatomy: Lesions of the brain stem and cerebellum	Theoretical	2
SCA2-COV Anatomy: Cranial nerves: I-VI lesions	Theoretical	1
SCA2-COV Anatomy: Cranial nerves: VII-XII lesions	Theoretical	1
SCA2-COV Anatomy: Cerebral hemisphere lesions, subcortical lesions, and vascular lesions	Theoretical	2
SCA2-COV Anatomy: Clinical anatomy of eyeball and accessory ocular structures	Theoretical	1
SCA2-COV Anatomy: Visual tract lesions	Theoretical	1
SCA2-COV Anatomy: Hearing and balance: Clinical anatomy	Theoretical	1
SCA2-COV Histology and Embryology: Developmental anomalies of nervous system	Theoretical	1
SCA2-COV Histology and Embryology: Developmental anomalies of eye globes-lids and ears	Theoretical	2
2. Circulatory, Respiratory and Lymphatic Systems Course Board	Type	Time
SCA2-COV Anatomy: Clinical anatomy of the cardiovascular system	Theoretical	2
SCA2-COV Anatomy: Clinical anatomy of the respiratory system	Theoretical	2
SCA2-COV Physiology: Patterns of circulation in health and disease	Theoretical	2
SCA2-COV Histology and Embryology: Developmental anomalies of heart and vessels	Theoretical	2
SCA2-COV Medical Microbiology: Serolojik testler	Theoretical	2
3. Gastrointestinal System and Metabolism Course Board	Type	Time
SCA2-COV Anatomy: Abdominal wall hernias	Theoretical	1
SCA2-COV Anatomy: Clinical anatomy of the digestive system	Theoretical	2
SCA2-COV Histology and Embryology: Developmental anomalies of digestive system	Theoretical	2
SCA2-COV Medical Biochemistry: Disorders in lipid metabolism	Theoretical	1
SCA2-COV Medical Biochemistry: Obesity and diabetes	Theoretical	2
SCA2-COV Medical Biochemistry: Clinical evaluation of vitamin metabolism	Theoretical	1
4. Urogenital and Endocrine Systems Course Board	Type	Time



SCA2-COV Anatomy: Clinical anatomy of the urogenital system	Theoretical	2
SCA2-COV Anatomy: Clinical anatomy of the endocrine system	Theoretical	2
SCA2-COV Histology and Embryology: Developmental anomalies of urogenital system	Theoretical	2
SCA2-COV Medical Biochemistry: Biochemical overview to kidney diseases	Theoretical	1
SCA2-COV Medical Biochemistry: Clinical overview to hypothalamic-pituitary system diseases	Theoretical	1
SCA2-COV Medical Biochemistry: Clinical overview to thyroid gland diseases	Theoretical	1
SCA2-COV Medical Biochemistry: Clinical overview to adrenal gland diseases	Theoretical	2
5. Basics of Diseases Course Board	Type	Time
SCA2-COV Medical Biochemistry: Clinical importance of oxidative phosphorylation and energy homeostasis	Theoretical	1
SCA2-COV Medical Biochemistry: Clinical enzymology	Theoretical	2
SCA2-COV Medical Biochemistry: Cancer Biochemistry	Theoretical	2
SCA2-COV Medical Biology: Inherited metabolic diseases	Theoretical	2
SCA2-COV Medical Biology: Epigenetic effects on heredity	Theoretical	1
SCA2-COV Medical Biology: Chromosomal aberrations	Theoretical	1
SCA2-COV Medical Biology: Gene defects	Theoretical	2
SCA2-COV Medical Biology: Molecular diagnostic methods	Theoretical	1
SCA2-COV Medical Pharmacology: Rational drug use	Theoretical	1
SCA2-COV Medical Pharmacology: Drugs used in special cases	Theoretical	1
SCA2-COV Medical Pharmacology: Pharmacogenetics	Theoretical	1
SCA2-COV Medical Pharmacology: Clinical drug research, bioavailability, and bioequivalence studies	Theoretical	1
SCA2-COV Medical Pharmacology: Pharmacovigilance	Theoretical	1
SCA2-COV Medical Microbiology: Tümör immünolojisi	Theoretical	1
SCA2-COV Medical Microbiology: Tıbbi önemi olan artropodlar ve oluşturdıkları hastalıklar	Theoretical	1
CLINICAL SKILLS II (CSK II)		
Topic	Type	Time
1. Nervous System And Special Senses Course Board	Type	Time
SCA2-CSK: Wound dressing skills	Practical	2
2. Circulatory, Respiratory and Lymphatic Systems Course Board	Type	Time
SCA2-CSK: Ability to apply elastic bandages	Practical	2
3. Gastrointestinal System and Metabolism Course Board	Type	Time
SCA2-CSK: Blood pressure measurement skills	Practical	2
4. Urogenital and Endocrine Systems Course Board	Type	Time
SCA2-CSK: Bleeding control	Practical	2
5. Basics of Diseases Course Board	Type	Time
SCA2-CSK: Ability to give intramuscular (IM) and subcutaneous (SC) injections	Practical	2