### GAZI UNIVERSITY FACULTY OF MEDICINE

# YEAR 2

# 2023-2024 EDUCATIONAL YEAR

### **RESPIRATORY AND CARDIOVASCULAR SYSTEMS COMMITTEE**

### (01.11.2023-29.12.2023)

COURSES	THEORETICAL	LABORATORY	PRACTICAL	TOTAL		
Anatomy	23	12 X 2		35		
Biophysics	12			12		
Histology and Embryology	24	12x 2		36		
Physiology	47	8x4		55		
Medical History and Ethics	20			20		
TOTAL	126	32		158		
Clinical Skills Education			2	2		
Problem Based Learning			6	6		
Communication Skills			6	6		
Elective Lectures	18			18		
Medical English	18			18		
Coordinator Information	1			1		
TOTAL	37		14	51		
Free study time	119 hours					

### Total 45 work-day

Medical English (face-to-face):. It is every Tuesday between 1.30 pm and 3.20 pm.

Elective Course: It is every Tuesday between 3.30 pm and 5.20 pm.

Free study time definition: Individual studying courses intended for learning in accordance with the present committee.

26.12.2023	Tuesday	Year 2 Applied Exam	Time: 08.30
27.12.2023	Wednesday	Year 2 Applied Exam	Time: 08.30
28.12.2023	Thursday	Year 2 Applied Exam	Time: 08.30
29.12.2023	Friday	Year 2 Theoretical Exam	Time: 09:30

Dean	Prof. Dr. Alper CEYLAN
Vice Dean	Assoc. Prof. Dr. Nazmi Mutlu KARAKAŞ
Vice Dean	Assoc. Prof. Dr. Asiye UĞRAŞ DİKMEN
Head Coordinator	Prof. Dr. Çiğdem ÖZER
Assistant Head Coordinator	Prof. Dr. Akif Muhtar ÖZTÜRK
Assistant Head Coordinator(ENG)	Prof. Dr. Mehmet Ali ERGÜN
Year 2Coordinator	Assist. Prof. Dr. S.Esra ÖZKOÇER
Assistant Year 2 Coordinator	Assist. Prof. Dr. Zeynep YIĞMAN (Eng)
Assistant Year 2 Coordinator	Teach. Assist. Dr. Pelin TÜRKKAN
Assistant Year 2 Coordinator	Teach. Assist. Dr. Nihan ÖRÜKLÜ
Assistant Year 2 Coordinator	Teach. Assist. Dr. Ayşe SOYLU

## COMMITTEE MEMBERS

ANATOMY	HISTOLOGY AND EMBRYLOGY	PHYSIOLOGY	BIOPHYSICS	IMMUNOLOGY
Dr. Meltem BAHÇELİOĞLU	Dr.Çiğdem ELMAS	Dr. Şevin GÜNEY	Dr. Bahriye SIRAV ARAL	Dr. Vedat BULUT
Dr. Kerem ATALAR	Dr. Cemile Merve SEYMEN	Dr. Meltem SEVGİLİ		Dr. Ayşegül ATAK YÜCEL
	Dr. Zeynep YIĞMAN	Dr. Pelin TÜRKKAN		Dr. E. Ümit BAĞRIAÇIK
	Dr. Esra ÖZKOÇER			Dr. Resul KARAKUŞ
	Dr. Duygu DAYANIR			

ANATOMY LAB.	HISTOLOGY AND EMBRYLOGY LAB.	PHYSIOLOGY LAB.
Dr. Meltem BAHÇELİOĞLU	Dr. Çiğdem ELMAS	Dr. Şevin GÜNEY
Dr. Kerem ATALAR	Dr. Gülnur TAKE KAPLANOĞLU	Dr. Meltem SEVGİLİ
	Dr. Cemile Merve SEYMEN	Dr. Pelin TÜRKKAN
	Dr. Zeynep YIĞMAN	
	Dr. Esra ÖZKOÇER	
	Dr. Duygu DAYANIR	

Communication Skills Coordinator	Prof. Dr. Nesrin DEMİRSOY
<b>Clinical Skills Education Coordinator</b>	Prof.Dr. Nurten İNAN
Problem Based Medicine Coordinator	Prof.Dr. Deniz KARÇAALTINCABA
Elective Course Coordinator	Assoc. Prof. Dr. Ergin DİLEKÖZ

### RESPIRATORY AND CIRCULATORY SYSTEMS COMMITTEE

### Aim

Be able to evaluate the embryonic development, anomalies, anatomical, histological and physiological properties of blood, circulation, fetal circulation, lymphatic circulation and respiratory systems by associating them with biophysical laws.

### LEARNING OUTCOMES

### **Knowledge Based**

**LO-200-2-1** to be able to describe the anatomical, histological and embriyological structure of the heart, explain its functional properties

**LO-200-2-2** to be able to say the contraction mechanisms of the heart muscle and may understand the regulation of heart functioning

LO-200-2-3 to be able to explain the ECG

LO-200-2-4 can describe the anomalies and malformations of the cardiovascular system

**LO-200-2-5** to explain the anatomical, histological and functional properties of the structures forming the cardiovascular system

**LO-200-2-6** to explain the flow of blood, blood pressure and regulation mechanisms, connection with related physics laws

LO-200-2-7 to describe fetal, pulmonary and coronary circulation

LO-200-2-8 to define the lymphoreticular system

**LO-200-2-9** To be able to define the anatomical, histological and embryological structure of the respiratory system and explain its functional properties

LO-200-2-10 Describe the properties and functions of structures spesific to respiratory system

LO-200-2-11 Describe the properties and functions of blood and cells

LO-200-2-12 Explain the functions of immune system organs, cells, MHC molecules, T and B cells LO-200-2-13 To be able to interpret the types of respiratory and respiratory pathologies

#### Application Based (practical skills)

LO-200-2-14 to be able to use basic communication skill

LO-200-2-15 to demonstrate the ability to establish vascular access

**LO-200-2-16** To be able to show the differences between the structures of cardiovascular system and the respiratory system under the microscope

LO-200-2-17 to demostrate Hb, Htc, sedimentation, blood group studies

LO-200-2-18 to be able to show the heart's arousal systems

LO-200-2-19 to determine CO2 in breathing air, analyze NO

LO-200-2-20 to apply respiratory function tests

LO-200-2-21 to be able to take and interpret ECG

Skills Based (intellectual and transferable skills)

LO-200-2-22 to be aware of working with a living organ or subject.

LO-200-2-23 to recognize the responsibility to behave in a way that does not cause damage during operations

LO-200-2-24 to be aware of cadaver and microscope studies

1 <sup>th</sup> week	30.10.2023 MONDAY	31.10.2023 TUESDAY	01.11.2023 WEDNESDAY	02.11.2023 THURSDAY 1 <sup>st</sup> Year Exam	03.11.2023 FRIDAY
08:30-09:20	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM	Thoracic wall, Anatomy of the Heart Dr. ATALAR	Circulatory system histology Dr. ÖZKOÇER	CSE
09:30-10:20	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM	Thoracic wall, Anatomy of the Heart Dr. ATALAR	Lymphocytes Dr. KARAKUŞ	CSE
10:30-11:20	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM	Anatomy of the heart Dr. BAHÇELIOĞLU	Lymphocytes Dr. KARAKUŞ	CSE
11:30-12:20	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM	Anatomy of the heart Dr. BAHÇELIOĞLU	Basic principles of cardiac electrophysiology and myocardial contraction Dr. GÜNEY	CSE
13:30-14:20	YEAR 2 APPLIED EXAM	Medical English	Circulatory system histology Dr. ÖZKOÇER	Basic principles of cardiac electrophysiology and myocardial contraction Dr. GÜNEY	Mediastinum Dr. BAHÇELİOĞLU
14:30-15:20	YEAR 2 APPLIED EXAM	Medical English	Circulatory system histology Dr. ÖZKOÇER	Functions of blood, physical and chemical properties Dr. TÜRKKAN	Fetal circulation Dr. BAHÇELİOĞLU
15:30-16:20	YEAR 2 APPLIED EXAM	Elective Courses	FREE STUDY TIME	Functions of blood, physical and chemical properties Dr. TÜRKKAN	FREE STUDY TIME
16:30-17:20	YEAR 2 APPLIED EXAM	Elective Courses	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME

2 <sup>nd</sup> week	06.11.2023 MONDAY	07.11.2023 TUESDAY 3 <sup>rd</sup> Year Exam	08.11.2023 WEDNESDAY	09.11.2023 THURSDAY	10.11.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME
09:30-10:20	FREE STUDY TIME	Blood Dr. DAYANIR	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME
10:30-11:20	Vessels of the head and neck Dr. ATALAR	Blood Dr. DAYANIR	Vessels of the head and neck Dr. ATALAR	Lymphocyte subgroups Dr. KARAKUŞ	Lymphatic system Dr. BAHÇELIOĞLU
11:30-12:20	Vessels of the head and neck Dr. ATALAR	Basic principles of cardiac electrophysiology and myocardial contraction Dr. GÜNEY	Lymphatic system Dr. BAHÇELIOĞLU	Lymphocyte subgroups Dr. KARAKUŞ	Lymphatic system Dr. BAHÇELIOĞLU
13:30-14:20	Regulation of Hematopoiesis Dr. TÜRKKAN	Medical English	Hematopoiesis Dr. DAYANIR	Anatomy Lab (1) Histology Lab (1)	The cardiac cycle and pressure changes DR. GÜNEY
14:30-15:20	Regulation of Hematopoiesis Dr. TÜRKKAN	Medical English	Hematopoiesis Dr. DAYANIR	Anatomy Lab (1) Histology Lab (1)	The cardiac cycle and pressure changes DR. GÜNEY
15:30-16:20	FREE STUDY TIME	Elective Courses	PBL	Anatomy Lab (1) Histology Lab (1)	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	PBL	Anatomy Lab (1) Histology Lab (1)	FREE STUDY TIME

3 <sup>rd</sup> week	13.11.2023 MONDAY	14.11.2023 TUESDAY	15.11.2023 WEDNESDAY	16.11.2023 THURSDAY	17.11.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	FREE STUDY TIME	Physiology Lab (1)	FREE STUDY TIME	FREE STUDY TIME
09:30-10:20	FREE STUDY TIME	FREE STUDY TIME	Physiology Lab (1)	Immune system organs Dr. BAĞRIAÇIK	Questions Analysis of 1st Committee Exam and Feedback
10:30-11:20	Cells other than lymphocytes involved in immune response Dr. KARAKUŞ	FREE STUDY TIME	Physiology Lab (1)	Cells of Lymphoid tissue Dr. ÖZKOÇER	Tonsil and Lymph node Dr. ÖZKOÇER
11:30-12:20	Cells other than lymphocytes involved in immune response Dr. KARAKUŞ	FREE STUDY TIME	Physiology Lab (1)	Cells of Lymphoid tissue Dr. ÖZKOÇER	Tonsil and Lymph node Dr. ÖZKOÇER
13:30-14:20	Functions of Erythrocytes Dr. TÜRKKAN	Medical English	Forces on active erythrocytes:Stoke's Law Dr. SIRAV ARAL	Destruction of Erythrocytes. Anemia- Polistemia Dr. TÜRKKAN	Heart valves and heart sounds DR. GÜNEY
14:30-15:20	Functions of Erythrocytes Dr. TÜRKKAN	Medical English	Forces on active erythrocytes:Stoke's Law Dr. SIRAV ARAL	Blood groups, transfusion, determination of blood volume Dr. TÜRKKAN	Regulation of heart functions DR. GÜNEY
15:30-16:20	FREE STUDY TIME	Elective Courses	PBL	FREE STUDY TIME	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	PBL	FREE STUDY TIME	FREE STUDY TIME

4 <sup>th</sup> week	20.11.2023 MONDAY	21.11.2023 TUESDAY	22.11.2023 WEDNESDAY	23.11.2023 THURSDAY	24.11.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	Anatomy Lab (2) Histology Lab (2)	Physiology Lab (1)	Circulatory system embryology Dr. ÖZKOÇER	Circulatory system embryology Dr. ÖZKOÇER
09:30-10:20	FREE STUDY TIME	Anatomy Lab (2) Histology Lab (2)	Physiology Lab (1)	Circulatory system embryology Dr. ÖZKOÇER	Circulatory system embryology Dr. ÖZKOÇER
10:30-11:20	Spleen and Thymus Dr. YIĞMAN	Anatomy Lab (2) Histology Lab (2)	Physiology Lab (1)	Phagocytosis Dr. TÜRKKAN	ECG DR. GÜNEY
11:30-12:20	Spleen and Thymus Dr. YIĞMAN	Anatomy Lab (2) Histology Lab (2)	Physiology Lab (1)	Platelet functions Dr. TÜRKKAN	ECG DR. GÜNEY
13:30-14:20	Leucocyte functions Dr. TÜRKKAN	Medical English	MHC molecules: structure and function Dr.BULUT	Regulation of heart functions DR. GÜNEY	Mechanism of coagulation Dr. TÜRKKAN
14:30-15:20	Leucocyte functions Dr. TÜRKKAN	Medical English	MHC molecules: structure and function Dr.BULUT	ECG DR. GÜNEY	Mechanism of coagulation Dr. TÜRKKAN
15:30-16:20	FREE STUDY TIME	Elective Courses	PBL	FREE STUDY TIME	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	PBL	FREE STUDY TIME	FREE STUDY TIME

5 <sup>th</sup> week	27.11.2023 MONDAY	28.11.2023 TUESDAY	29.11.2023 WEDNESDAY	30.11.2023 THURSDAY	01.12.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	Anatomy Lab (3) Histology Lab (3)	Physiology Lab (2)	Principles of hemodynamics Dr. SEVGILI	The factors affecting blood pressure Dr. SEVGİLİ
09:30-10:20	Pressure in Circulation System:Bernoulli Law, Velocity and Flow in internal frictional flowing:Poiseulli law Dr. SIRAV ARAL	Anatomy Lab (3) Histology Lab (3)	Physiology Lab (2)	Principles of hemodynamics Dr. SEVGILI	The factors affecting blood pressure Dr. SEVGILI
10:30-11:20	Pressure in Circulation System:Bernoulli Law, Velocity and Flow in internal frictional flowing:Poiseulli law Dr. SIRAV ARAL	Anatomy Lab (3) Histology Lab (3)	Physiology Lab (2)	Nose Anatomy Dr. ATALAR	Larynx Dr. BAHÇELİOĞLU
11:30-12:20	Antigen processing and presentation Dr. BULUT	Anatomy Lab (3) Histology Lab (3)	Physiology Lab (2)	Nose Anatomy Dr. ATALAR	Larynx Dr. BAHÇELİOĞLU
13:30-14:20	Functional organization of blood vessels Dr. SEVGILI	Medical English	Communication Skills	T and B cells repertoir mechanisms Dr. BAĞRIAÇIK	FREE STUDY TIME
14:30-15:20	Functional organization of blood vessels Dr. SEVGILI	Medical English	Communication Skills	T and B cells repertoir mechanisms Dr. BAĞRIAÇIK	FREE STUDY TIME
15:30-16:20	FREE STUDY TIME	Elective Courses	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME

6 <sup>th</sup> week	04.12.2023 MONDAY	05.12.2023 TUESDAY	06.12.2023 WEDNESDAY	07.12.2023 THURSDAY	08.12.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	Anatomy Lab (4) Histology Lab (4)	Trachea, lungs and diaphragm Dr. ATALAR	Physiology Lab (2)	Physiology Lab (3)
09:30-10:20	Conducting portion of respiratory system Dr. ELMAS	Anatomy Lab (4) Histology Lab (4)	Trachea, lungs and diaphragm Dr. ATALAR	Physiology Lab (2)	Physiology Lab (3)
10:30-11:20	Conducting portion of respiratory system Dr. ELMAS	Anatomy Lab (4) Histology Lab (4)	Autoregulation and capillary dynamics Dr. SEVGILI	Physiology Lab (2)	Physiology Lab (3)
11:30-12:20	Adhesion molecules structure and function Dr.BAĞRIAÇIK	Anatomy Lab (4) Histology Lab (4)	Autoregulation and capillary dynamics Dr. SEVGILI	Physiology Lab (2)	Physiology Lab (3)
13:30-14:20	Training, changes in pressure-velocity and kinetic energy due to pathological cont of arteries Dr. SIRAV ARAL	Medical English	Communication Skills	Fetal and Pulmonary circulation Dr. SEVGİLİ	Circulatory Shock and Physiological Mechanisms in Some Cardiovascular Diseases Dr. GÜNEY
14:30-15:20	Training, changes in pressure-velocity and kinetic energy due to pathological cont of arteries Dr. SIRAV ARAL	Medical English	Communication Skills	Fetal and Pulmonary circulation Dr. SEVGİLİ	Circulatory Shock and Physiological Mechanisms in Some Cardiovascular Diseases Dr. GÜNEY
15:30-16:20	FREE STUDY TIME	Elective Courses	FREE STUDY TIME	Complement System Dr. BAĞRIAÇIK	Cytokines Dr. ATAK YÜCEL
16:30-17:20	FREE STUDY TIME	Elective Courses	FREE STUDY TIME	Complement System Dr. BAĞRIAÇIK	Cytokines Dr. ATAK YÜCEL

7 <sup>th</sup> week	11.12.2023 MONDAY 3 <sup>rd</sup> Year Exam	12.12.2023 TUESDAY	13.12.2023 WEDNESDAY 1 <sup>st</sup> Year Exam	14.12.2023 THURSDAY	15.12.2023 FRIDAY
08:30-09:20	Clinical and Radiographic Anatomy Dr. BAHÇELİOĞLU	Anatomy Lab (5) Histology Lab (5)	Physiology Lab (3)	Mechanics of breathing and physical principles Dr. SEVGILI	FREE STUDY TIME
09:30-10:20	Clinical and Radiographic Anatomy Dr. BAHÇELİOĞLU	Anatomy Lab (5) Histology Lab (5)	Physiology Lab (3)	Quantitative relations of respiration Dr. SEVGILI	Clinical and Radiographic Anatomy Dr. BAHÇELİOĞLU
10:30-11:20	Coronary circulation Dr. SEVGİLİ	Anatomy Lab (5) Histology Lab (5)	Physiology Lab (3)	Cellular and Humoral Immune Response Dr. KARAKUŞ	Clinical and Radiographic Anatomy Dr. BAHÇELİOĞLU
11:30-12:20	The functions of the respiratory system Dr. SEVGILI	Anatomy Lab (5) Histology Lab (5)	Physiology Lab (3)	Cellular and Humoral Immune Response Dr. KARAKUŞ	Clinical and Radiographic Anatomy Dr. BAHÇELİOĞLU
13:30-14:20	Respiratory portion of respiratory system Dr. ELMAS	Medical English	Communication Skills	Laplace law and autoregulation of pressure Dr. SIRAV ARAL	Diffusion of gases through the respiratory membrane Dr. SEVGİLİ
14:30-15:20	Respiratory portion of respiratory system Dr. ELMAS	Medical English	Communication Skills	Laplace law and autoregulation of pressure Dr. SIRAV ARAL	Hb-O <sub>2</sub> Binding and Dissociation Curve Dr. SEVGİLİ
15:30-16:20	Chemokines and their receptors Dr. ATAK YÜCEL	Elective Courses	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	FREE STUDY TIME	FREE STUDY TIME	FREE STUDY TIME

8 <sup>th</sup> week	18.12.2023 MONDAY	19.12.2023 TUESDAY	20.12.2023 WEDNESDAY	21.12.2023 THURSDAY	22.12.2023 FRIDAY
08:30-09:20	FREE STUDY TIME	FREE STUDY TIME	Physiology Lab (4)	Anatomy Lab (6) Histology Lab(6)	FREE STUDY TIME
09:30-10:20	FREE STUDY TIME	FREE STUDY TIME	Physiology Lab (4)	Anatomy Lab (6) Histology Lab(6)	FREE STUDY TIME
10:30-11:20	O <sub>2</sub> , CO <sub>2</sub> Transport by the Blood Dr. SEVGİLİ	Surface Tension and Alveolus Mechanics Compliance in Lung and Breast Dr. SIRAV ARAL	Physiology Lab (4)	Anatomy Lab (6) Histology Lab(6)	Regulation of Respiration Dr. SEVGİLİ
11:30-12:20	Regulation of Respiration Dr. SEVGILI	Surface Tension and Alveolus Mechanics Compliance in Lung and Breast Dr. SIRAV ARAL	Physiology Lab (4)	Anatomy Lab (6) Histology Lab(6)	Respiratory System Under Stress Dr. SEVGİLİ
13:30-14:20	Resp. system and its dynamic properties. Gas laws related with respiration, application of Poiseulle and Laplace Laws in respiratory system Dr. SIRAV ARAL	Medical English	Physiology Lab (4)	Respiratory System Embryology Dr. SEYMEN	FREE STUDY TIME
14:30-15:20	Resp. system and its dynamic properties. Gas laws related with respiration, application of Poiseulle and Laplace Laws in respiratory system Dr. SIRAV ARAL	Medical English	Physiology Lab (4)	Respiratory System Embryology Dr. SEYMEN	FREE STUDY TIME
15:30-16:20	FREE STUDY TIME	Elective Courses	Physiology Lab (4)	Respiratory System Embryology Dr. SEYMEN	FREE STUDY TIME
16:30-17:20	FREE STUDY TIME	Elective Courses	Physiology Lab (4)	FREE STUDY TIME	FREE STUDY TIME

9 <sup>th</sup> week	25.12.2023	26.12.2023	27.12.2023	28.12.2023	29.12.2023
	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
08:30-09:20	FREE STUDY	YEAR 2	YEAR 2	YEAR 2	FREE STUDY
	TIME	APPLIED EXAM	APPLIED EXAM	APPLIED EXAM	TIME
09:30-10:20	FREE STUDY TIME	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM
10:30-11:20	FREE STUDY TIME	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM
11:30-12:20	FREE STUDY TIME	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM
13:30-14:20	Physiology Lab (Make Up)	Medical English	YEAR 2 APPLIED EXAM	YEAR 2 APPLIED EXAM	YEAR 2 THEORETICAL EXAM
14:30-15:20	Physiology Lab	Medical	YEAR 2	YEAR 2	FREE STUDY
	(Make Up)	English	APPLIED EXAM	APPLIED EXAM	TIME
15:30-16:20	Physiology Lab	Elective	YEAR 2	YEAR 2	FREE STUDY
	(Make Up)	Courses	APPLIED EXAM	APPLIED EXAM	TIME
16:30-17:20	Physiology Lab	Elective	YEAR 2	YEAR 2	FREE STUDY
	(Make Up)	Courses	APPLIED EXAM	APPLIED EXAM	TIME