



**MUĞLA SITKI KOÇMAN UNIVERSITY FACULTY of MEDICINE
PHASE 2
ENGLISH MEDICINE PROGRAM**

2023/2024 Academic Year

Committee 2 GUIDEBOOK

Prepared By:

PHASE 2 COORDINATOR AND VICE-COORDINATORS

PREFACE

Dear Students,

Welcome to the phase 2 committee 2 which is an important part of your education.

This guide describes what you will learn and perform during your committee program, the rules you must follow in the committee, and the working conditions. We wish you all success with the belief that this guide will guide you through the committee.

Phase 2 Coordinatorship

GENERAL INFORMATION on COURSE

A. GENERAL INFORMATION	
Year	Phase 2- Committee 2
Course Title	Circulatory and Respiratory Systems
Level of Course	First Cycle
Required/Elective	Required
Language	English
Course Code(s) (MED 2200)	<p>Committee Lessons</p> <ol style="list-style-type: none"> 1. MED 2001 Medical Biochemistry 2. MED 2002 Biophysics 3. MED 2004 Anatomy 4. MED 2003 Histology and Embryology 5. MED 2005 PBL 6. MED 2006 Physiology 7. MED 2007 Medical Microbiology <p>Out of Committee Lessons</p> <ol style="list-style-type: none"> 1. YDB 2801 English III 2. YDB 2802 English IV 3. YDB 2813 German III 4. YDB 2814 German IV 5. YDB 2815 French III 6. YDB 2816 French IV
Duration of the course	7 weeks
ECTS:	12

TEACHING STAFF

Phase Coordinator	Asist. Prof. Dr. Hasan Tetiker
Vice -Coordinators	Assoc. Prof. Dr. Turan Demircan Asist. Prof. Dr. Egemen Kaya Asist. Prof. Dr. Şehbal Yeşilbaş M.D. Zeynep Nisa Karakoyun
Head of the Committee	Assoc. Prof. Dr. Onur Elmas
Teaching staff of the Committee Program	<p>Department of Anatomy</p> <ol style="list-style-type: none"> 1. Prof. Dr. Mehmet İlkay Koşar 2. Assist. Prof. Dr. Hasan Tetiker 3. Assist. Prof. Dr. Ceren Uğuz Gençer 4. Assist. Prof. Dr. Mustafa Deniz Yörük 5. M.D. Zeynep Nisa Karakoyun <p>Department of Physiology</p> <ol style="list-style-type: none"> 1. Assoc. Prof. Dr. Onur Elmas 2. Assist. Prof. Dr. Egemen Kaya <p>Department of Histology and Embryology</p> <ol style="list-style-type: none"> 1. Prof. Dr. Feral Öztürk 2. Assoc. Prof. Dr. Hülya Elbe 3. Assist. Prof. Dr. Gürkan Yiğittürk <p>Department of Medical Biochemistry</p> <ol style="list-style-type: none"> 1. Prof. Dr. İsmail Çetin Öztürk 2. Assist. Prof. Dr. Ercan Saruhan <p>Department of Medical Microbiology</p> <ol style="list-style-type: none"> 1. Assist. Prof. Dr. Alper Aksözek 2. Assist. Prof. Dr. Burak Ekrem Çitil <p>Department of Biophysics</p> <ol style="list-style-type: none"> 1. Assist. Prof. Dr. Tanju Mercan

TEACHING METHODS-TECHNIQUES

Theoretical	
Classroom Lesson	+
Practice	
Laboratory Studies	+
Structured Free Study Hours	+
Problem Based Learning	+

PHYSICAL SPACES

Classrooms and Study Areas	<ol style="list-style-type: none"> 1. Faculty of Medicine Classroom-II 2. Anatomy Laboratory 3. Microbiology Laboratory 4. Microscopy Laboratory
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RELATED LEGISLATION

<http://www.tip.mu.edu.tr/tr/ilgili-mevzuat-6641>

COMMITTEE CLASS HOURS DISTRIBUTION

LECTURES	Theoretical L.H	Practical L.H.	Total L.H.
Anatomy	26	10 (10x2 Grup=20 saat)	36
Physiology	18	4	22
Medical Microbiology	24	4	28
Histology and Embryology	14	10 (10x2 Grup=20+ 4 Amfi=24)	24
Biophysics	10	-	10
Medical Biochemistry	10	-	10
Foreign Language	15	-	15
Problem Based Learning (PBL)	12	-	12
Total	117	28	157

AIM(S) of the COMMITTEE

1.	In this committee, it is aimed that students be able to evaluate the embryological development processes, anomalies, anatomical, histological, physiological and biochemical features of the circulatory and respiratory systems by associating them with the laws of biophysics.
2.	In this committee, it is aimed that the students comprehend the problem-based approach to the cases.
3.	In this committee, it is aimed that the students be able to comprehend the principles of basic immunology and the basic media and dyes used in medical bacteriology.
4.	In this committee, it is aimed that students comprehend case analysis with Problem based learning methods.

OBJECTIVE(S) of the COMMITTEE

1.	To be able to theoretically define the anatomical details of the structures that make up the circulatory and respiratory systems such as the nose, larynx, trachea, lungs, heart, arterial, venous, and lymphatic vessels and nodes and the thoracic wall, and to be able to show these structures on cadavers and models.
2.	To be able to count the histological layers of the structures that make up the circulatory and respiratory systems, to be able to distinguish the types of vessels and to be able to recognize them microscopically.
3.	To be able to define the embryological developmental stages of the structures that make up the circulatory and respiratory systems, and the features and anomalies of the fetal circulation.
4.	To be able to explain the structures that play a role in the development of the head and neck, which structures are formed from these structures and their development times.
5.	To be able to explain the electrophysiological properties of the heart muscle and its relationship with the pump function of the heart, the flow-pressure-resistance relationship in the circulatory system, the cooperation of the heart and vascular system in providing appropriate tissue perfusion, the pressure-current relationship in the vascular system and the control mechanisms of microcirculation.
6.	To be able to count the neurogenic and hormonal mechanisms that function in the regulation of blood pressure, to be able to recognize heart sounds, to be able to interpret blood pressure changes, to be able to calculate heart rate on ECG, to be able to evaluate heart rhythm and to be able to perform vector analysis.
7.	To be able to interpret the changes in current-resistance relations and partial gas pressures during the passage of air through these routes during exhalation.
8.	To be able to comprehend and evaluate the factors regulating ventilation mechanics (pulmonary elastic properties, intrathoracic negative pressure) and the meaning of pulmonary function tests.
9.	To be able to explain the dynamics of pulmonary circulation and blood flow and to be able to interpret the relationship with gas exchange in the lung.

10.	To be able to describe the dynamics of oxygen and carbon dioxide exchange between atmosphere and blood, blood and cell, the transport of these gases and the biochemical reactions in this process.
11.	To be able to describe the centers in the brain stem regulating respiratory activity, their functioning, and the structures and functions of peripheral and central chemoreceptors that carry data to these centers.
12.	To be able to explain the physical basis of ECG, the efficiency and strength of the heart, surface tension, surfactant and alveolar mechanics.
13.	To be able to describe the biochemical structure of blood and to be able to explain the biochemical mechanisms in erythrocytes, to be able to describe the biochemical structures and mechanisms of coagulation proteins.
14.	To be able to describe both biosynthesis and degradation metabolism and to be able to explain porphyries.
15.	To be able to explain the importance of iron, its functions, metabolism in the body, iron-related proteins and diseases.
16.	To be able to describe the biochemical mechanisms of the respiratory system.
17.	To be able to comprehend and interpret the members of natural, cellular and humoral immunity in humans, their stages and the interaction between each other, to be able to recognize and use the basic media and dyes used in medical bacteriology.

INTENDED LEARNING OUTCOME(S)

1.	Can theoretically define the anatomical details of the structures that make up the circulatory and respiratory systems such as the nose, larynx, trachea, lungs, heart, arterial, venous, and lymphatic vessels and nodes and the thoracic wall, and can show these structures on cadavers and models.
2.	Can count the histological layers of the structures that make up the circulatory and respiratory systems, can distinguish the types of vessels and can recognize them microscopically.
3.	Can define the embryological developmental stages of the structures that make up the circulatory and respiratory systems, and the features and anomalies of the fetal circulation.
4.	Can explain the structures that play a role in the development of the head and neck, which structures are formed from these structures and their development times.
5.	Can explain the electrophysiological properties of the heart muscle and its relationship with the pump function of the heart, the flow-pressure-resistance relationship in the circulatory system, the cooperation of the heart and vascular system in providing appropriate tissue perfusion, the pressure-current relationship in the vascular system and the control mechanisms of microcirculation.
6.	Can count the neurogenic and hormonal mechanisms that function in the regulation of blood pressure, can recognize heart sounds, can interpret blood pressure changes, can calculate heart rate on ECG, can evaluate heart rhythm and can perform vector analysis.
7.	Can interpret the changes in current-resistance relations and partial gas pressures during the passage of air through these routes during exhalation.
8.	Can comprehend and evaluate the factors regulating ventilation mechanics (pulmonary elastic properties, intrathoracic negative pressure) and the meaning of pulmonary function tests.
9.	Can explain the dynamics of pulmonary circulation and blood flow and can interpret the relationship with gas exchange in the lung.
10.	Can describe the dynamics of oxygen and carbon dioxide exchange between atmosphere and blood, blood and cell, the transport of these gases and the

	biochemical reactions in this process.
11.	Can describe the centers in the brain stem regulating respiratory activity, their functioning, and the structures and functions of peripheral and central chemoreceptors that carry data to these centers.
12.	Can explain the physical basis of ECG, the efficiency and strength of the heart, surface tension, surfactant, and alveolar mechanics.
13.	Can describe the biochemical structure of blood and can explain the biochemical mechanisms in erythrocytes, can describe the biochemical structures and mechanisms of coagulation proteins.
14.	Can describe both biosynthesis and degradation metabolism and can explain porphyries.
15.	Can explain the importance of iron, its functions, metabolism in the body, iron-related proteins and diseases.
16.	Can describe the biochemical mechanisms of the respiratory system.
17.	Can comprehend and interpret the members of natural, cellular and humoral immunity in humans, their stages and the interaction between each other, can recognize and use the basic media and dyes used in medical bacteriology.

RECOMMENDED RESOURCE(S)

KEY RESOURCE(S)

Recommended Reading/ Studying materials	<p>Anatomy</p> <ol style="list-style-type: none"> 1. Yasin Arifoğlu, Her yönüyle Anatomi. 2016, İstanbul Tıp Kitapevi 2. Moore Clinically Oriented Anatomy 7th Edition 3. Sobotta Atlas of Human Anatomy, 15th Edition 4. Netter İnsan Anatomisi Atlası, 6. Baskı- Frank H. Netter, M.D 5. Atlas of Human Anatomy, Sixth Edition- Frank H. Netter, M.D 6. Arıncı K, Elhan A; Anatomi 1-2. Güneş kitapevi 7. Snell RS, Klinik Anatomi, Nobel Tıp Kitapevi <p>Medical Biochemistry</p> <ol style="list-style-type: none"> 1. Bhagavan's Medical Biochemistry 2. Tietz Textbook Of Clinical Chemistry 3. Hapners Biochemistry 4. Marks' Essentials of Medical Biochemistry <p>Physiology</p> <ol style="list-style-type: none"> 1. Guyton and Hall Textbook of Medical Physiology 13e pdf 2. Ganong's Review of Medical Physiology, 26th Edition 3. İnsan Fizyolojisi, Halis KOYLU, 3. Baskı 4. Vander's Human Physiology 14th ed. <p>Histology and Embryology</p> <ol style="list-style-type: none"> 1. Histoloji. Hücre, Doku, Sistemler, Teknikler-Moleküller-Laboratuvar-Klinik Yönleriyle Yaklaşımlar. Editör: M. KURUŞ. Akademisyen Kitapevi, 2020. 2. Textbook of Histology 5th Edition. Leslie P. Gartner, PhD, Elsevier, 2020. 3. Klinik Yönleriyle İnsan Embriyolojisi. Moore Kieth L. (Çeviri editörü: H. Dalçık). Nobel Tıp Kitapevi, 2016. 4. Genel Histoloji-Özel Histoloji. Eşrefoğlu Mukaddes. İstanbul Tıp Kitapevi, 2016. 5. Histology: A Text and Atlas. Ross MH, Pawlina W. 8th ed. Lippincott Williams & Wilkins, USA, 2019. 6. Human Embryology & Developmental Biology Carlson BM. 6th ed. Mosby Elsevier, Philadelphia, 2018. <p>Medical Microbiology</p> <ol style="list-style-type: none"> 1. Abul K. Abbas, Andrew H. Lichtman : Temel İmmünoloji; Warren Levinson : Review of Medical Microbiology Immunology 2. Jawetz, Melnick ve adelberg Tıbbi Mikrobiyoloji 2014; Doan T, Melvold R: Lippincott İmmünoloji 2014
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	<p>Biophysics</p> <ol style="list-style-type: none">1. Biyofizik; Prof. Dr. Ferit Pehlivan, Hacettepe-Taş Yayınları2. Temel Biyofizik Cilt-1: Biyomekanik, Prof. Dr. İsmail Günay Çukurova Nobel tıp yayınları3. Biyofizik, Prof. Dr. Gürbüz Çelebi; İzmir4. Biyomedikal Fizik, Prof. Dr. Gürbüz Çelebi, Barış Yayınları5. Biophysics: An Introduction, Rodney M. J. Cotterill6. From Neuron to Brain, JG Nichols, AR Martin, BG Wallace (Sinauer)
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ASSESSMENT and EVALUATION

PHASE 2 COMMITTEE 2 EXAM SCHEDULE

COMMITTEE 2 EXAM SCHEDULE

Theoretical Examination: 08/12/2023 Friday Hour: 10.30

Practical Examination(s):

Histology and Embryology Laboratory Exam: 06/12/2023 Wednesday Hour: 08.30-12.20

Medical Microbiology Laboratory Exam: 07/12/2023 Thursday Hour: 08.30-12.20

Anatomy Laboratory Exam: 07/12/2023 Wednesday Hour: 13.30-17.20

PHASE 2 COMMITTEE 2 QUESTION DISTRUBITION

2023-2024 Academic Year Phase 2 Committee 2 Question Distribution

Board Lessons	Number of questions
Anatomy	25
Physiology	15
Medical Microbiology	19
Histology and Embryology	17
Biophysics	7
Medical Biochemistry	7
PBL	10
TOTAL SCORE	100

ASSESSMENT AND EVALUATION IN COMMITTEE EVALUATION EXAM

COMMITTEE EXAM EVALUATION		
Activities	Number	Value (%)
Practice exam Anatomy Histology and Embryology Medical Microbiology	One for each lesson The application method of the Practical Exams is determined by the relevant Department.	It will be announced at least one week before the exam.
Oral exam	There is no oral examination in this committee.	-
Problem Based Learning Session Evaluation	1	10 points
Professional Skills Practice Exam	-	-
Written exam	1	It will be announced at least one week before the exam.
Total		100

COMMITTEE EXAM SPECIFICATION TABLE

	Objective	Training method	Assessment method	Exam score distribution
1	To be able to theoretically define the anatomical details of the structures that make up the circulatory and respiratory systems such as the nose, larynx, trachea, lungs, heart, arterial, venous, and lymphatic vessels and nodes and the thoracic wall, and to be able to show these structures on cadavers and models.	T, P	MCE, PE	28

2	To be able to count the histological layers of the structures that make up the circulatory and respiratory systems, to be able to distinguish the types of vessels and to be able to recognize them microscopically.	T, P	MCE, PE	3
3	To be able to define the embryological developmental stages of the structures that make up the circulatory and respiratory systems, and the features and anomalies of the fetal circulation.	T, P	MCE, PE	3
4	To be able to explain the structures that play a role in the development of the head and neck, which structures are formed from these structures and their development times.	T, P	MCE, PE	3
5	To be able to explain the electrophysiological properties of the heart muscle and its relationship with the pump function of the heart, the flow-pressure-resistance relationship in the circulatory system, the cooperation of the heart and vascular system in providing appropriate tissue perfusion, the pressure-current relationship in the vascular system and the control mechanisms of microcirculation.	T, P	MCE	3
6	To be able to count the neurogenic and hormonal mechanisms that function in the regulation of blood pressure, to be able to recognize heart sounds, to be able to interpret blood pressure changes, to be able to calculate heart rate on ECG, to be able to evaluate heart rhythm and to be able to perform vector analysis.	T, P	MCE	3
7	To be able to interpret the changes in current-resistance relations and partial gas pressures	T, P	MCE	3

	during the passage of air through these routes during exhalation.			
8	To be able to comprehend and evaluate the factors regulating ventilation mechanics (pulmonary elastic properties, intrathoracic negative pressure) and the meaning of pulmonary function tests.	T, P	MCE	3
9	To be able to explain the dynamics of pulmonary circulation and blood flow and to be able to interpret the relationship with gas exchange in the lung.	T, P	MCE	3
10	To be able to describe the dynamics of oxygen and carbon dioxide exchange between atmosphere and blood, blood and cell, the transport of these gases and the biochemical reactions in this process.	T	MCE	2
11	To be able to describe the centers in the brain stem regulating respiratory activity, their functioning, and the structures and functions of peripheral and central chemoreceptors that carry data to these centers.	T	MCE	2
12	To be able to explain the physical basis of ECG, the efficiency and strength of the heart, surface tension, surfactant and alveolar mechanics.	T	MCE	2
13	To be able to describe the biochemical structure of blood and to be able to explain the biochemical mechanisms in erythrocytes, to be able to describe the biochemical structures and mechanisms of coagulation proteins.	T	MCE	2
14	To be able to describe both biosynthesis and degradation metabolism and to be able to explain porphyries.	T	MCE	2
15	To be able to explain the importance of iron, its	T	MCE	1

	functions, metabolism in the body, iron-related proteins and diseases.			
16	To be able to describe the biochemical mechanisms of the respiratory system.	T	MCE	1
17	To be able to comprehend and interpret the members of natural, cellular and humoral immunity in humans, their stages and the interaction between each other, to be able to recognize and use the basic media and dyes used in medical bacteriology.	T, P	MCE, PE	23

T: Theoretical education, P: Practical education, SSM: Special Study Module, MC: Multiple choice exam, PE: Practical Exam.

COURSE CONTENT OF THE COMMITTEE

Course content	<p>Department of Anatomy</p> <ol style="list-style-type: none"> 1. Heart and pericardium 2. Fetal Circulation 3. Arcus Aortae 4. Aorta thoracica 5. Head and neck veins 6. Thorax veins 7. Neck anterior and lateral regions 8. Neck root 9. Nose and nasal formations 10. Larynx 11. Trachea and Lungs 12. Thorax wall anatomy 13. Lymphatic system and vessels 14. Diaphragm 15. Mediastinum <p>Department of Medical Biochemistry</p> <ol style="list-style-type: none"> 1. Blood tissue and Erythrocyte biochemistry 2. Biochemistry of coagulation proteins 3. Biosynthesis of Hem and Porphyrins 4. Respiratory System biochemistry 5. Iron metabolism <p>Department of Physiology</p> <ol style="list-style-type: none"> 1. Functions of the Heart and Heart Valves as a Pump 2. Rhythmic Stimulation of the Heart and the Heart's Excitation Conduction system 3. Electrocardiography: Derivations and Basic Rules 4. Electrocardiography: Cardiac Arrhythmias 5. Interpretation of Electrocardiogram: Velocity, Axis 6. Interpretation of Electrocardiogram: Rhythm and Waves 7. Heart Cycle: Time, Pressure, and Volume Changes 8. Heart Cycle: Wiggers Diagram 9. Heart Sounds and Valve Diseases 10. Cardiac Output, Venous Return and Their Regulation 11. Pressure, Flow, and Resistance in the Circulatory System 12. Rapid and Long-Term Regulation of Blood Pressure 13. Capillary Dynamics 14. Lymphatic System 15. Respiratory System Morphology 16. Elastic Properties of the Lungs 17. Lung Ventilation
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18. Pulmonary Circulation, Pulmonary Edema and Pleural Fluid
19. Alveolar Ventilation and Perfusion
20. Ventilation-Perfusion Ratio
21. Pulmonary Function Tests
22. Regulation of Breathing

Department of Histology and Embryology

1. Circulatory System Histology
2. Fetal Circulation
3. Development of the Circulatory System
4. Microscopic introduction of the Circulatory System
5. Respiratory System Histology
6. Respiratory System Development
7. Respiratory system microscopic introduction
8. Lymphoid Organs Histology and Development
9. Lymphoid organs microscopic introduction
10. Head and neck Development

Department of Medical Microbiology

1. Mediums and Methods of Sowing into Media
2. Introduction to Basic Immunology
3. Antigen and receptors
4. The need to recognize one's own
5. Cells and Tissues of the Immune System
6. Natural Immunity
7. Cellular components of Natural Immunity
8. Complement System
9. Effector Mechanisms of Innate Immunity and the Inflammatory Response
10. Capture and Presentation of Antigens to Lymphocytes
11. Painting Methods
12. Antigen Recognition
13. Cellular Immunity
14. Effector Mechanisms of Cellular Immunity
15. Humoral Immunity
16. Effector Mechanisms of Humoral Immunity
17. Regulation of Acquired Immune Responses
18. Termination of the Immune Response
19. Serological Diagnostic Methods Used in Microbiology

Department of Biophysics

1. Physical Foundations of ECG
2. Measurement Methods of Blood Pressure and Blood Flow
3. Relationship between hydrostatic pressure and edema, varicose veins and blood pressure
4. Bernoulli's principle, Poiseuille's law and blood flow
5. Laplace's law and aneurysm
6. Efficiency and strength of the heart
7. Lung volume capacities and FVC determination methods
8. Respiratory system and blood gases
9. Surface tension, surfactant and alveolar mechanics

THE RELATIONSHIP WITH THE LEARNING OBJECTIVES AND THE ACTIVITY IN THE TRAINING PROGRAM

COMMITTEE PROGRAM RELATION MATRIX WITH OBJECTIVES		
COURSE CONTENT	Learning Objectives (LO)	Evaluation Method
Anatomy	1	T,P
1. Heart and pericardium	1	T,P
2. Fetal Circulation	1	T,P
3. Arcus Aortae	1	T,P
4. Aorta thoracica	1	T,P
5. Head and neck veins	1	T,P
6. Thorax veins	1	T,P
7. Neck anterior and lateral regions	1	T,P
8. Neck root	1	T,P
9. Nose and nasal formations	1	T,P
10. Larynx	1	T,P
11. Trachea and Lungs	1	T,P
12. Thorax wall anatomy	1	T,P
13. Lymphatic system and vessels	1	T,P
14. Diaphragm	1	T,P
15. Mediastinum	1	T,P
Medical Biochemistry		
1. Blood tissue and Erythrocyte biochemistry	13	T
2. Biochemistry of coagulation proteins	13	T
3. Biosynthesis of Hem and Porphyrins	14	T
4. Respiratory System biochemistry	16	T
5. Iron metabolism	15	T
Physiology		
1. Functions of the Heart and Heart Valves as a Pump	5	T
2. Rhythmic Stimulation of the Heart and the Heart's Excitation Conduction system	5	T
3. Electrocardiography: Derivations and Basic Rules	6	T
4. Electrocardiography: Cardiac Arrhythmias	6	T

5. Interpretation of Electrocardiogram: Velocity, Axis	6	T
6. Interpretation of Electrocardiogram: Rhythm and Waves	6	T
7. Heart Cycle: Time, Pressure, and Volume Changes	5	T
8. Heart Cycle: Wiggers Diagram	5	T
9. Heart Sounds and Valve Diseases	6	T
10. Cardiac Output, Venous Return and Their Regulation	5	T
11. Pressure, Flow, and Resistance in the Circulatory System	5	T
12. Rapid and Long-Term Regulation of Blood Pressure	6	T
13. Capillary Dynamics	5	T
14. Lymphatic System	5	T
15. Respiratory System Morphology	7	T
16. Elastic Properties of the Lungs	8	T
17. Lung Ventilation	9	T
18. Pulmonary Circulation, Pulmonary Edema and Pleural Fluid	9	T
19. Alveolar Ventilation and Perfusion	9	T
20. Ventilation-Perfusion Ratio	9	T
21. Pulmonary Function Tests	8	T
22. Regulation of Breathing	9	T
Histology and Embryology		
1. Circulatory System Histology	2	T,P
2. Fetal Circulation	3	T,P
3. Development of the Circulatory System	3	T,P
4. Microscopic introduction of the Circulatory System	2	T,P
5. Respiratory System Histology	2	T,P
6. Respiratory System Development	3	T,P
7. Respiratory system microscopic introduction	2	T,P
8. Lymphoid Organs Histology and Development	2, 3	T,P
9. Lymphoid organs microscopic introduction	2	T,P
10. Head and neck Development	4	T,P
Medical Microbiology		
1. Mediums and Methods of Sowing into Media	17	T,P
2. Introduction to Basic Immunology	17	T,P
3. Antigen and receptors	17	T,P
4. The need to recognize one's own	17	T,P
5. Cells and Tissues of the Immune System	17	T,P
6. Natural Immunity	17	T,P

7. Cellular components of Natural Immunity	17	T,P
8. Complement System	17	T,P
9. Effector Mechanisms of Innate Immunity and the Inflammatory Response	17	T,P
10. Capture and Presentation of Antigens to Lymphocytes	17	T,P
11. Painting Methods	17	T,P
12. Antigen Recognition	17	T,P
13. Cellular Immunity	17	T,P
14. Effector Mechanisms of Cellular Immunity	17	T,P
15. Humoral Immunity	17	T,P
16. Effector Mechanisms of Humoral Immunity	17	T,P
17. Regulation of Acquired Immune Responses	17	T,P
18. Termination of the Immune Response	17	T,P
19. Serological Diagnostic Methods Used in Microbiology	17	T,P
Biophysics		
1. Physical Foundations of ECG	12	T
2. Measurement Methods of Blood Pressure and Blood Flow	10	T
3. Relationship between hydrostatic pressure and edema, varicose veins and blood pressure	10	T
4. Bernoulli's principle, Poiseuille's law and blood flow	10	T
5. Laplace's law and aneurysm	10	T
6. Efficiency and strength of the heart	12	T
7. Lung volume capacities and FVC determination methods	11	T
8. Respiratory system and blood gases	11	T
9. Surface tension, surfactant and alveolar mechanics	12	T

T: Theoretical, P: Practical

DUTIES and RESPONSIBILITIES OF STUDENTS and OTHER ISSUES

EDUCATIONAL PROGRAM

1. Education in the faculty is carried out with an integrated system, the subjects and hours of which are arranged on the basis of coordination.
2. Education; In Phase I, Phase II and Phase III, it consists of common compulsory and elective courses with course committees conducted in an integrated system. In Phase I, Phase II and Phase III, one year is a whole and is considered as a single course, excluding common compulsory and elective courses.

LESSONS

1. Each semester in the faculty's education program is a prerequisite for the next semester. Except for the common compulsory courses and elective courses, it is not possible to proceed to the next semester without completing all the courses, practices and courses of a semester.
2. Students who fail common compulsory and elective courses in Phase I, Phase II and Phase III continue to the next semester. However, students must be successful in these courses before starting Phase IV.

ECTS:

1. The sum of course credits for an academic year is 60 ECTS.
2. In order to graduate from the Faculty of Medicine at the end of 6 years of education, the minimum graduation credit must be 360 ECTS and the overall grade point average must be at least 2.00.

OBLIGATION TO CONTINUE

1. The principles regarding the attendance of students in Phase I, Phase II and Phase III are as follows:
2. Attendance at the faculty is compulsory. The follow-up method of attendance at the faculty is determined by the Dean's Office.

3. Each of the committees in Phase I, Phase II and Phase III are evaluated within itself. A student who does not attend more than 30% of the theoretical courses in these course committees, with or without an excuse, receives a zero grade from that course committee and cannot take the exam.
4. In Phase I, Phase II and Phase III, students who exceed 30% in all theoretical courses in a phase, whether or not they have an excuse for absenteeism, are not entitled to take the final and make-up exams. These students are given a TT grade.
5. With or without an excuse, a student who does not attend more than 20% of the total practical course hours of the department with 10 or more practical lessons is not taken to the practical exam of that department and the practice grade is evaluated as zero. In this case, the student is treated as having a score under the threshold from the practical exam separately.
6. With or without an excuse, a student who does not attend two hours of the practical courses of the department with less than 10 hours of practical lessons in a course committee is not taken to the practical exam of that department and the practice grade is evaluated as zero. In this case, the student is treated as having a score under the threshold from the practical exam separately.
7. Professional (vocational) skills practices are evaluated as a whole. If the total professional skills practices in a course committee are less than 10 hours, the student who does not participate in the 2 course hours, and if the total professional skills practices in the course committee are more than 10 hours, the student who does not attend more than 20% of the total course hours, the professional skills practice / application grade in that course committee is evaluated as zero. In this case, the student will be below the threshold in addition to the professional skills practice/practice exam.

RECOGNITION OF PRIOR EDUCATION

1. Students apply to the Dean's Office with a petition **within the first week of the academic year** in order to have the courses they have taken and succeeded from other higher education institutions recognized and adapted.
2. In the petition, the courses they want to be exempted from and the grades they get from these courses are clearly stated. In the annex of the petition, documents approved by the official authorities regarding their previous education, the grades of the courses they have previously completed, and their content are submitted.

EVALUATION OF SUCCESS IN PHASE I, PHASE II, PHASE III EXAMS

1. The following principles are followed in calculating the exam grades of the course committees:
2. Board exams are made as written exams and/or by using alternative methods such as homework/project. Exams can be conducted face-to-face and/or using digital facilities. In addition to the written exams, practical-practice and/or oral exams can be made by using face-to-face and/or digital facilities in the committees with practice. Different assessment methods can be determined for problem-based teaching, vocational skills training and other similar training practices.
3. The total grade of practical courses and their distribution according to the courses, the grade weight of the vocational skills practices, problem-based teaching (PBL) and other similar education and examination practices and the distribution according to the boards are determined by the Phase coordinators in line with the content of the education-training program.
4. In a course committee exam, each course and practice/practice exam has its own threshold. The threshold limit is 50%. If the student gets a grade below 50% in one or more of the courses that make up the board in the course committee exam, the score difference between the score obtained in that branch and 50% of the total score of that branch is deducted from the total score of the exam, and the exam grade of that course committee is determined. For the courses whose number of questions is less than 5% of the total number of questions in that exam, the relevant phase coordinator may decide to combine the dam application. Theoretical and practical points of the courses that make up the course committee are added together, and the course board exam score is found.
5. If the result is negative in the calculation of the total score of the course committee, this score is evaluated as zero.
6. Phase committees average grade: To calculate the phase committees average grade point; The ECTS value of each committee in that period is multiplied by the coefficient of the letter grade received from that committee. The values found as a result of the multiplication are added together and the total value obtained is divided by the total ECTS value of these committees. The resulting average is displayed as two decimal places.
7. Course committees are made by using alternative methods such as end-of-Phase (final) and make-up exams, written exams and/or homework/projects. Exams can be conducted

face-to-face and/or using digital facilities. In addition to the written exams, a practical (practice) and/or oral exam can also be conducted using face-to-face and/or digital facilities.

8. In order to be considered successful, it is obligatory to get at least 50 points from the course committees end-of- Phase exam or the course committees make-up exam.

9. The final grade of the course committees is the grade obtained by adding 60% of the average grade of the course committees and 40% of the grade received from the final exam. In the calculation of the final grade of the students who fails, the grade taken from the make-up exam is taken as a basis instead of the grade from the final exam. In order for the student to move up to the next grade, he/she must get at least 50 from the course committees end-of-Phase exam or make-up exam, and The final grade of the course committees must be at least 60 out of 100.

10. The provisions of Muğla Sıtkı Koçman University Associate and Undergraduate Education Regulations published in the Official Gazette dated 27/8/2011 and numbered 28038 are applied in the conduct of common compulsory courses and non-TIP/MED coded elective/compulsory courses and in the evaluation of their exams.

RIGHT TO EXEMPTION FROM THE END OF PHASE (FINAL) EXAM

1. Students with an average grade of 85 and above in the course committees and a score of at least 60 and above from each course committee are not required to take the end-of- Phase exam. The average grade of the course committees of the students who have the right to be exempted from the end-of- Phase exam is accepted as the end-of- Phase success grade of the course committees.

2. Students who want to take the the end-of- Phase exam, although they have obtained the right to be exempted from the end-of- Phase exam, must notify the Dean's Office in writing at least 7 days before the exam date. For students who take the end-of- Phase exam in order to raise their grades, the end-of- Phase exam score is taken into consideration when calculating the final grade of the course committees.

PHASE REPEAT

1. A student whose end-of- Phase exam grade or make-up exam grade and course committees end-of-semester success grade is below the scores specified in this regulation is considered unsuccessful and failed in the class. These students repeat that semester one more time and retake the exams. In these repetitions, students are obligated to attend classes.

RESPONSIBILITIES

1. They strive to make the classroom atmosphere nurturing to learning.
2. They are fair in their judgments about their friends and respectful of the existence of all people in the resolution of conflicts.
3. They respect cultural differences.
4. They are intolerant of all kinds of discrimination.
5. They maintain academic integrity and act accordingly.
6. They take an impartial attitude towards research, explain the results accurately, and state the studies and ideas that have been made or developed by others.
7. They act in a respectful and cooperative manner in interaction with all members of the healthcare team.
8. Take care of their appearance, be present in a professional and clean manner, and do not wear clothing and jewelry (jewelry, tattoos, or other symbols) that may interfere with the physical care of patients or communication with them.
9. They behave professionally in 9th grade classes, in clinical settings, in the way of speaking before the patient, reliability and appearance.
10. In their clinical practice, they always carry the university's identity or name badges on their aprons.
11. They introduce themselves to patients and their relatives as "**medical students**".
12. They participate in all clinical practices they are assigned to and inform the relevant people about their excuses in advance.
13. Respect the privacy of patients when interacting with them.
14. They consider confidentiality a fundamental obligation in patient care.
15. In their interaction with patients, instructors cannot act without their supervision or knowledge.
16. They keep all medical records related to patient care confidential and ensure that educational discussions about these records are held in accordance with the principles of confidentiality.
17. They report any illegal and unprofessional practices they observe to the authorities.
18. They make discussions about hospital staff and patients in a way that no one can hear except in common areas.
19. They treat patients and their relatives, as well as other members of the healthcare team, with respect and seriousness in their dialogue and discussion.
20. They know their limitations and seek help when their experience is insufficient.

21. During training and practice studies and exams, they do not make any unauthorized video, audio and similar recordings and do not share these recordings with third parties (including in social media, internet and similar environments), do not use or collect them for other purposes.
22. They act in accordance with the principles regarding attendance and other matters of Phase I, II and III students in the MSKU Faculty of Medicine Education-Training and Examination Regulations.
23. Students know the rules to be followed by students in MSKU Faculty of Medicine Pre-Graduation Education, students' responsibilities and duties and act accordingly.
24. Students know the issues in the Student Guides for MSKU Faculty of Medicine Student Laboratory Practices and act in accordance with these issues.

Please read:

1. The Rules to be Followed by Students in MSKU Faculty of Medicine Pre-Graduation Education, Students' Responsibilities and Duties
2. Student Guides for MSKU Faculty of Medicine Student Laboratory Practices

ENGLISH MEDICINE PROGRAM

Common Compulsory Courses English Medicine Program: Foreign Language (English-German-French 1-2-3-4), Principles of Atatürk and Revolutionary History 1-2 (International Student: ATBY2801, ATBY2802), Turkish Language 1-2 (International Student: TDBY1801, TDBY1802), Introduction to Information & Communication Technologies (Names and codes of the lessons may differ slightly from year to year)

MSKU Faculty of Medicine Education and Examination Regulations: Students who fail common compulsory and elective courses in Phase I, Phase II and Phase III continue to the next semester. However, students must be successful in these courses before starting Phase IV.

Compulsory Observation Training 1-2: Students who successfully complete the Phase 1 do their compulsory observation training in a primary healthcare institution for ten working days during the summer or half year vacation period; Students who successfully complete Phase 2 do their compulsory observation training in a secondary or tertiary healthcare institution for ten working days during the summer or half year vacation period. Completing the observation trainings is a prerequisite for starting Phase 4. It is a prerequisite to pass the

Occupational Health and Safety course in order to do the Compulsory Observation Training. Compulsory Observation Training Course is planned to come into effect in the 2023-2024 academic year.

International students enrolled in the English Medicine Program: Until Phase 4, the original document proving that they can speak Turkish at the B2 level, taken from the centers providing Turkish education (Turkish and Foreign Language Application and Research Center-TÖMER, etc.) accepted by YÖK, has to be submitted to the Dean's Office. Students who cannot meet the Turkish proficiency requirement cannot continue to Phase 4 until they have the prerequisite Turkish proficiency certificate.

Courses Required Before Passing to Phase 4 of the English Medicine Program: Foreign Language (English-German-French) 1-2-3-4, Principles of Atatürk and Revolutionary History 1-2 (Foreign Student: ATBY2801, ATBY2802), Turkish Language 1-2 (Foreign Student: TDBY1801, TDBY1802), Introduction to Information & Communication Technologies, Phase 1 Elective Course, Compulsory Observation Training 1-2, Turkish Proficiency Certificate specified in the regulation for international students (Names and codes of the lessons may differ slightly from year to year) (Register from the Student Information System and check your success at regular intervals.)

Registration for Common Compulsory Courses and Elective Courses: Students have to register for these courses themselves through the student information system and follow up all the courses that you have to achieve regularly through the student information system by entering the student information system at least once a week.

Disclaimer:

The information given in the guide above is for informing students only and does not have any legal status. Keep in mind that there may be changes over time due to the names of the courses, their codes, legal regulations, the decisions of board of coordinators, the decisions of the term coordinator and similar reasons.