

**TTEE I - CARDIOVASCULAR SYSTEM**  
**DISTRIBUTION of LECTURE HOURS**  
**September 17 - October 26, 2018**  
**COMMITTEE DURATION: 6 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 203</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>108</b>	<b>27</b>	<b>135</b>
	<b>DISCIPLINE</b>			
	ANATOMY	14	2Grx4H	18
	BIOCHEMISTRY	12	3Grx2H	14
	BIOPHYSICS	10	0	10
	BIOSTATISTICS	2	0	2
	HISTOLOGY & EMBRYOLOGY	11	2Grx5H	16
	IMMUNOLOGY	3	0	3
	MEDICAL BIOLOGY	4	0	4
	MEDICAL MICROBIOLOGY	9	4GrX3H	12
	PATHOLOGY	7	0	7
	PHYSIOLOGY	34	3Grx10H	44
	SCIENTIFIC PROJECTS-II	2	4GrX3H	5

<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	<b>4GrX 1H</b>	<b>4GrX 2H</b>	<b>3</b>
----------------	--	----------------	----------------	----------

<b>Coordination Committee</b>	<b>Head</b>	Bayram YILMAZ, PhD. Prof.
	<b>Secretary</b>	Alev CUMBUL, PhD. Assist. Prof.
	<b>Member</b>	Mehtap KAÇAR, MD. PhD. Assoc. Prof.
	<b>Member</b>	Akif MAHARRAMOV, PhD. Assist. Prof.

**COMMITTEE I - CARDIOVASCULAR SYSTEM  
LECTURERS**

<b>MED 203 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
ANATOMY	ERDEM SÖZTÜRK, MD. Assist. Prof. Aikaterini PANTELİ, MD. Lecturer. LAB: Edibe BİLİŞLİ, DVM LAB: Zeynep Büşra ODABAŞ, DMD
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. LAB: Jale ÇOBAN, MD Prof. LAB: Müge KOPUZ, PhD.
BIOPHYSICS	Akif MAHARRAMOV, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assist. Prof.
BIOSTATISTICS	E. Çiğdem ALTUNOK, PhD Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Aylin YABA UÇAR, PhD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof.
IMMUNOLOGY	Güleren YANIKKAYA DEMİREL, MD PhD Assoc. Prof.
MEDICAL BIOLOGY	Turgay İSBİR, PhD Prof. Soner DOĞAN, PhD Assoc. Prof. Deniz KIRAÇ, PhD Assoc. Prof.
MEDICAL MICROBIOLOGY	İ. Çağatay ACUNER Assoc. Prof Microbiology Lecturer
PATHOLOGY	Aydın SAV, MD. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD. PhD. Assoc. Prof . Burcu GEMİCİ BAŞOL, PhD. Assoc. Prof.
SCIENTIFIC PROJECTS-II	Güleren YANIKKAYA DEMİREL, MD. PhD. Assoc. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Özlem TANRİÖVER, MD. MPH. Assoc. Prof. A. Arzu AKALIN, MD. Assist. Prof. Serdar ÖZDEMİR, MD. PhD. Assist. Prof.

## **COMMITTEE I - CARDIOVASCULAR SYSTEM**

### **AIM and LEARNING OBJECTIVES**

#### **AIMS**

1. To convey knowledge about biophysical, biological, anatomical, embryological, histological, physiological and biochemical properties of cardiovascular system,
2. To convey knowledge on hemodynamics of cardiovascular system,
3. To convey information about electrical activity and functional activity of heart by defining all basic parameters,
4. To convey information about cardiovascular system anatomy
5. To convey basic, general knowledge about immunology,
6. To convey basic, general knowledge about microbiology and information about the structural/biological features and pathogenesis of fungi,
7. To convey basic knowledge about biostatistics.

#### **LEARNING OBJECTIVES**

*At the end of this committee, student should be able to:*

- 1.0. For cardiovascular systems;
  - 1.1. explain biophysical changes,
  - 1.2. associate with the clinical reflections.
- 2.0. For cardiovascular system;
  - 2.1. explain biological characteristics of the system,
  - 2.2. associate with the clinical reflections.
- 3.0. For cardiovascular system;
  - 3.1. describe their anatomy,
  - 3.2. associate with adjacent tissues and organs,
  - 3.3. explain their functional and clinical reflections..
- 4.0. For thorax and diaphragm
  - 4.1. describe their anatomy,
  - 4.2. associate with adjacent tissue and organs,
  - 4.3. explain their functional and clinical reflections.
- 5.0. For cardiovascular system;
  - 5.1. explain developmental stages,
  - 5.2. list embryological origins of organs,
  - 5.3. associate the relation between major birth abnormalities and developmental process.
- 6.0. list lymphatic organs of cardiovascular system and histological properties of blood.
- 7.0. explain hemodynamics of cardiovascular system and electrical activity of heart by biophysical mechanisms.
- 8.0. describe the structure, functions, synthesis and degradation of hemoglobin.
- 9.0. describe erythrocyte-specific metabolisms.
- 10.0. describe formation, differentiation and functions of blood cells.
- 11.0. describe physiopathology of diseases, such as anemia, leukemia, hemophilia.
- 12.0. describe heart rhythm, cardiac output and cardiac cycle.
- 13.0. describe nervous (autonomous) control of cardiovascular system.
- 14.0. explain functions of cardiovascular system.
- 15.0. explain functions and dynamics of circulatory system.
- 16.0. explain measurements of hematocrit, blood group analysis, blood pressure and ECG methods.

- 17.0. For immune system;
  - 17.1. explain development and differentiation of immune cells,
  - 17.2. relate changes with diseases,
  - 17.3. describe the properties of immune response.
- 18.0. For hemodynamic changes;
  - 18.1. explain mechanisms of development,
  - 18.2. describe mechanisms for cellular damage,
  - 18.3. describe pathologies occurring due to cell and tissue damage.
- 19.0. describe the factors that determine pathology as a basic science.
- 20.0. explain the factors of tissue damage
- 21.0. describe the pathological consequences and interactions of cellular injury on the cell and tissue morphology with examples.
- 22.0. describe examples of pathological consequences of immune response.
- 23.0. explain the factors that affect the clinical course and outcome of cell injury
- 24.0. list disorders resulting from hemodynamic changes.
- 25.0. describe how to write a scientific project proposal
- 26.0. prepare a research project draft.
- 27.0. count biostatistical sampling methods.
- 28.0. count significance tests in biostatistics.
- 29.0. For human flora;
  - 29.1 describe the flora,
  - 29.2 explain its relation to clinical conditions.
- 30.0. Describe the structural/biological features and pathogenesis of fungi.
- 31.0. explain case scenario related basic medical science topics in a clinical context.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**COMMITTEE I ASSESSMENT MATRIX**

LEARNING OBJECTIVES	DISCIPLINE	LECTURER/ INSTRUCTOR	DISTRUBITION of MCQs			
			CE	FE	IE	TOTAL
3.0-4.0	ANATOMY	Dr. E. Söztutar Dr. A. Panteli	15	5	5	25
8.0-10.0	BIOCHEMISTRY	Dr. İ. Özden	12	4	4	20
1.0	BIOPHYSICS	Dr. A. Maharramov	10	4	4	18
27.0-28.0	BIOSTATISTICS	Dr. Ç. Altunok	1	1	1	3
5.0-6.0	HISTOLOGY & EMBRYOLOGY	Dr. A. Cumbul Dr. A. Yaba Uçar	12	4	4	20
17.0	IMMUNOLOGY	Dr. G. Yanikkaya Demirel	2	1	1	4
2.0	MEDICAL BIOLOGY	Dr. T. İsbir Dr. D. Kıracı	3	1	1	5
29.0-30.0	MEDICAL MICROBIOLOGY	Dr. Ç. Acuner Microbiology Lecturer	7	3	3	13
18.0-24.0	PATHOLOGY	Dr. A. Sav	7	3	3	13
7.0-16.0	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar Dr. B. Gemici Başol	30	12	12	54
29	PBL		1	0	0	1
TOTAL			100	38/200 <sup>#</sup>	38/200 <sup>#</sup>	176
LEARNING OBJECTIVES		DISCIPLINE	DISTRUBITION of LAB ASSESSMENT POINTS			
			LPE			
3.0-4.0	ANATOMY		30			
8.0-10.0	BIOCHEMISTRY		5			
5.0-6.0	HISTOLOGY & EMBRYOLOGY		10			
29.0-30.0	MEDICAL MICROBIOLOGY		15			
7.0-16.0	PHYSIOLOGY		40			
TOTAL			100			

Total number of MCQs are 100, equal to 100 pts. Each question has 1 pt.).

Total value of LPE is equal to 100 points

**Committee Score (CS)= 95% of [90% CE (MCQ and SbMCQ) + 10% (LPE)]+5% of PBL-P**

**MCQ:** Multiple Choice Questions

**SbMCQ:** Scenario-based Multiple Choice Questions

**LPE:** Laboratory Practical Exam

**CE:** Committee Exam

**CS:** Committee Score

**FE:** Final Exam

**ICE:** Incomplete Exam

**Pts.:** Points

# In FE and ICE, 34 out of 200 FE and ICE MCQs and SbMCQ will be from Committee I (Each question is 0.5 pt, equal value)

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**I. WEEK / 17- 21 Sep 2018**

	Monday 17-Sep-2018	Tuesday 18-Sep-2018	Wednesday 19-Sep-2018	Thursday 20-Sep-2018	Friday 21-Sep-2018	
09.00- 09.50	<b>Introductory Session</b> Introduction to Phase II <b>Phase II Coordination Committee</b>	Lecture Introduction to Medical Microbiology <i>I. Çağatay Acuner</i>	Lecture Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin <i>Inci Özden</i>	<b>Laboratory / Microbiology</b> Principles and Procedures of Laboratory Safety <b>Microbiology Instructors</b>	<b>Lecture</b> Functions of Hemoglobin <i>Inci Özden</i>	
				<b>Group A</b>	<b>Group B,C,D IL</b>	
10.00- 10.50	<b>PBL Session</b>	Lecture Sterilization and Disinfection <i>I. Çağatay Acuner</i>	Lecture Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin <i>Inci Özden</i>	<b>Group B</b>	<b>Group A,C,D IL</b>	<b>Lecture</b> Functions of Hemoglobin <i>Inci Özden</i>
11.00- 11.50		Lecture Thoracic Cavity & Mediastinum <i>Aikaterini Panteli</i>	Lecture Introduction to Cardiovascular System <i>Aikaterini Panteli</i>	<b>Group C</b>	<b>Group A,B,D IL</b>	<b>Lecture / Scientific Project II</b> How to write a scientific project proposal <i>Güleren Yanikkaya Demirel</i>
12.00- 12.50		Lecture Thoracic Cavity & Mediastinum <i>Aikaterini Panteli</i>	Lecture Pericardium and Outer Surface of the Heart <i>Aikaterini Panteli</i>	<b>Group D</b>	<b>Group A,B,C IL</b>	<b>Lecture / Scientific Project II</b> How to write a scientific project proposal <i>Güleren Yanikkaya Demirel</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
14.00- 14.50	Introduction to Committee I <b>Secretary of Committee</b>	Lecture Functions of blood <i>Burcu Gemici Başol</i>	Lecture Histology of Circulatory Systems; Gn Spec. Arteries <i>Aylin Yaba Uçar</i>	Lecture Chambers of the Heart <i>Aikaterini Panteli</i>	<b>Laboratory / Anatomy</b> Pericardium, Outer Surface and Chambers of the Heart <i>Aikaterini Panteli</i>	
					<b>Group B</b>	<b>Group A IL</b>
15.00- 15.50	<b>Independent Learning</b>	Lecture Leukocytes <i>Burcu Gemici Başol</i>	Lecture Histology of Circulatory Systems; Capillaries & Veins <i>Aylin Yaba Uçar</i>	Lecture Chambers of the Heart <i>Aikaterini Panteli</i>	<b>Group B IL</b>	<b>Group A</b>
16.00- 16.50		Lecture Leukocytes <i>Burcu Gemici Başol</i>	Laboratory / Anatomy Thoracic Wall, Cavity and Mediastinum <i>Aikaterini Panteli</i>	<b>Independent Learning</b>	<b>Independent Learning</b>	
17.00-17.50		<b>Independent Learning</b>	<b>Group A IL</b>	<b>Group B</b>	<b>Independent Learning</b>	

IL: Independent Learning, CSL: Clinical Skills Learning, Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**II. WEEK / 24 – 28 Sep 2018**

	Monday 24-Sep-2018	Tuesday 25-Sep-2018	Wednesday 26-Sep-2018	Thursday 27-Sep-2018		Friday 28-Sep-2018	
09.00- 09.50	PBL Session	Lecture Coronary arteries, Cardiac Veins, and Cardiac Conduction System <i>Aikaterini Panteli</i>	Lecture Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin <i>Inci Özden</i>	Laboratory / Microbiology Collection, Storage and Transport of Specimens <i>Microbiology Instructors Group D</i>	<b>Laboratory /Physiology</b> Hematocrit Determination and Blood Typing & Bleeding Time <i>Mehtap Kaçar Group A</i>	Lecture Adaptations <i>Aydın Sav</i>	
10.00- 10.50		Lecture Coronary arteries, Cardiac Veins, and Cardiac Conduction System <i>Aikaterini Panteli</i>	Lecture Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin <i>Inci Özden</i>	Group C		Lecture Adaptations <i>Aydın Sav</i>	
11.00- 11.50		Lecture Erythrocyte <i>Burcu Gemici Başol</i>	Lecture Introduction to Mycology <i>I. Çağatay Acuner</i>	Group B	Group C	Lecture Regulation of Cardiac Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
12.00- 12.50	PBL Panel	Lecture Erythrocytes <i>Burcu Gemici Başol</i>	Lecture Fungal Pathogenesis <i>I. Çağatay Acuner</i>	Group A		Lecture Regulation of Cardiac Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
13.00- 13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break		
14.00- 14.50	Lecture Introduction to Bioelectromagnetics Magnetic Field <i>Akif Maharramov</i>	Lecture Great Vessels of the Heart <i>Aikaterini Panteli</i>	Lecture Platelets and Coagulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Introduction to Pathology <i>Aydın Sav</i>	ICP / CSL: Hand Washing & Wearing Sterile Gloves <i>Özlem Tanrıöver/ Serdar Özdemir Group A</i>	Group D SP SGSS <b>Laboratory / Physiology</b> Hematocrit Determination and Blood Typing & Bleeding Time <i>Bayram Yılmaz &amp; Mehtap Kaçar Group B</i>	
15.00- 15.50	Lecture Introduction to Bioelectromagnetics Electric Field <i>Akif Maharramov</i>	Lecture Major Vessels of the Body <i>Aikaterini Panteli</i>	Lecture Blood Types and Transfusion Reactions <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Lymphocytes and the Immune System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			
16.00- 16.50	Lecture Leucocyte circulation and migration into tissue <i>Güleren Yanıkkaya Demirel</i>	Independent Learning	Laboratory / Anatomy Coronary Arteries, Cardiac Veins, Cardiac Conduction System, Great Vessels of Heart and Body <i>Aikaterini Panteli</i>	Lecture Lymphocytes and the Immune System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			
17.00-17.50	Independent Learning		Group B, I.L	Group A		Independent Learning	

IL: Independent Learning, CSL: Clinical Skills Learning, Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**III. WEEK / 01 – 05 Oct 2018**

	Monday 01-Oct-2018	Tuesday 02-Oct-2018	Wednesday 03-Oct-2087	Thursday 04-Oct-2018		Friday 05-Oct-2018	
09.00-09.50	<b>Lecture</b> Rhythrical Excitation of the Heart <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Degradation of Hemoglobin <i>Inci Özden</i>	<b>Lecture</b> Development of Circulatory System; Endocardial Tube Formation & Looping <i>Alev Cumbul</i>	<b>Laboratory / Histology</b> Histology of Lymph Organs <i>Alev Cumbul &amp; Aylin Yaba Uçar</i> <b>Group A</b>	<b>Group B</b> I.L	<b>Lecture</b> Microcirculation and the Lymphatic System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
10.00-10.50	<b>Lecture</b> Rhythrical Excitation of the Heart <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Degradation of Hemoglobin <i>Inci Özden</i>	<b>Lecture</b> Development of Circulatory Systems; Septation <i>Alev Cumbul</i>			<b>Lecture</b> Capillary Fluid Exchange, Interstitial Fluid, and Lymph Flow <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
11.00-11.50	<b>Lecture</b> Introduction to Lymphatic System <i>Aikaterini Panteli</i>	<b>Lecture</b> Principles of Electrocardiography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Principles of Hemodynamics <i>Bayram Yılmaz &amp; Burcu Germici Başol</i>	<b>Group B</b>	<b>Group A</b> I.L	<b>Lecture</b> Coronary Circulation <i>Mehtap Kaçar</i>	
12.00-12.50	<b>Lecture</b> Circulation of Lymph <i>Aikaterini Panteli</i>	<b>Lecture</b> Electrocardiographic Interpretation of Cardiac Abnormalities <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Principles of Hemodynamics <i>Bayram Yılmaz &amp; Burcu Germici Başol</i>			<b>Lecture</b> Biophysics of Cardiac Muscle Contraction <i>Akif Maharramov</i>	
13.00-13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break		Lunch Break	
14.00-14.50	<b>Lecture</b> Histology of Lymph Organs; General Aspects, Thymus and Lymph Node <i>Aylin Yaba Uçar</i>	<b>Lecture</b> Superficial/Subcutaneous Mycosis <i>I. Çağatay Acuner</i>	<b>Lecture</b> Immunology of heart and vessels <i>Gülerden Yanikkaya Demirel</i>	<b>Lecture</b> Cardiac Arrhythmias <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B</b>	<b>Group A SGS</b>	<b>Group C, D I.L</b>
15.00-15.50	<b>Lecture</b> Histology of Lymph Organs; Spleen and MALT (Tonsils) <i>Aylin Yaba Uçar</i>	<b>Lecture</b> Systemic Mycoses <i>I. Çağatay Acuner</i>	<b>Lecture</b> Immunology of heart and vessels <i>Gülerden Yanikkaya Demirel</i>	<b>Lecture</b> Cardiac Arrhythmias <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			
16.00-16.50	<b>Lecture</b> Ischemia and Infarction <i>Aydın Sav</i>	<b>Lymphatic System Laboratory / Anatomy</b> <i>Aikaterini Panteli</i>	<b>Independent Learning</b>	<b>Lecture</b> Biophysics of Hemodynamics <i>Akif Maharramov</i>	<b>ICP / CSL: Hand Washing &amp; Wearing Sterile Gloves</b> <i>Özlem Tanrıöver/ Serdar Özdemir</i>	<b>Group B</b>	<b>Group C, D I.L</b>
17.00-17.50	<b>Lecture</b> Ischemia and Infarction <i>Aydın Sav</i>	<b>Group B</b> I.L		<b>Lecture</b> Measurements of Different Hemodynamic Parameters <i>Akif Maharramov</i>			

IL: Independent Learning, CSL: Clinical Skills Learning, Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**IV. WEEK / 08 – 12 Oct 2018**

	Monday 08-Oct-2018	Tuesday 09-Oct-2018	Wednesday 10-Oct-2018	Thursday 11-Oct-2018		Friday 12-Oct-2018	
09.00- 09.50	Lecture Congenital Heart Anomalies <i>Alev Cumbul</i>	Lecture Disorders Concerning Hemoglobin Metabolism <i>Inci Özden</i>	Lecture Regulation of Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Laboratory / Microbiology Mycology <i>Microbiology Instructors Group D</i>	Laboratory / Physiology ECG-II <i>Bayram Yılmaz &amp; Mehtap Kaçar Group A</i>	Lecture Heart Valves and Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
10.00- 10.50	Lecture Development of Circulatory Systems; Arteries and Anomalies <i>Alev Cumbul</i>	Lecture Disorders Concerning Hemoglobin Metabolism <i>Inci Özden</i>	Lecture Regulation of Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Group C		Lecture Heart Valves and Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
11.00- 11.50	Lecture Vascular Distensibility and Functions of Arterial and Venous Systems <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Local and Humoral Control of Blood Flow by the Tissues <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Hyperemia & Congestion <i>Aydın Sav</i>	Group B	Group C	Lecture Blood Coagulation, Primary Hemostasis <i>Inci Özden</i>	
12.00- 12.50	Lecture Vascular Distensibility and Functions of Arterial and Venous Systems <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Local and Humoral Control of Blood Flow by the Tissues <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Hyperemia & Congestion <i>Aydın Sav</i>	Group A		Lecture Secondary hemostasis, Procoagulation, Anticoagulation, Fibrinolysis <i>Inci Özden</i>	
13.00- 13.50	Lunch Break		Lunch Break	Lunch Break	Lunch Break		Lunch Break
14.00- 14.50	Laboratory/ Physiology ECG I <i>Bayram Yılmaz &amp; Mehtap Kaçar Group A</i>	Laboratory / Biochemistry Peripheral Blood Smear <i>Jale Çoban &amp; Müge Kopuz Group B</i>	Lecture Introduction to Bioelectromagnetics: Electromagnetic Field <i>Akif Maharramov</i>	Lecture Opportunistic Mycoses-I <i>I. Çağatay Acuner</i>	Lecture Biophysics of Blood Pressure <i>Akif Maharramov</i>	ICP / CSL: Hand Washing & Wearing Sterile Gloves <i>Arzu Akalın / Serdar Özdemir Group C</i>	Group A, B I.L
15.00- 15.50			Lecture Bioelectromagnetic Effects on the Heart <i>Akif Maharramov</i>	Lecture Opportunistic Mycoses-II <i>I. Çağatay Acuner</i>	Lecture Diagnostic Methods in Mycology <i>I. Çağatay Acuner</i>		
16.00- 16.50	Group C	Group A	Laboratory/ Physiology ECG I <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Laboratory / Biochemistry Peripheral Blood Smear <i>Jale Çoban &amp; Müge Kopuz</i>	Lecture Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and Cardiovascular System <i>Deniz Kıracı</i>	Laboratory / Physiology ECG-II <i>Bayram Yılmaz &amp; Mehtap Kaçar Group B</i>	Group A, C I.L
17.00-17.50			Group B	Group C	Lecture Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and Cardiovascular System <i>Deniz Kıracı</i>		Independent Learning

IL: Independent Learning, CSL: Clinical Skills Learning, Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**V. WEEK / 15 – 19 Oct 2018**

	Monday 15-Oct-2018	Tuesday 16-Oct-2018	Wednesday 17-Oct-2018	Thursday 18-Oct-2018		Friday 19-Oct-2018
09.00- 09.50	Lecture Development of Head; Splanchnocranum, Neurocranium <i>Aylin Yaba Uçar</i>	Lecture Fetal circulation <i>Aikaterini Panteli</i>	Lecture Cardiac Failure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Laboratory / Histology Histology of the Cardiovascular System <i>Alev Cumbul &amp; Aylin Yaba Uçar</i>  Group B	Laboratory / Physiology Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>  Group A	Lecture Sampling, Data Collection and Data Processing <i>E. Çiğdem Altunok</i>
10.00- 10.50	Lecture Development of Neck; Pharyngeal Arches and Anomalies <i>Aylin Yaba Uçar</i>	Lecture Review of the Cardiovascular System <i>Aikaterini Panteli</i>	Lecture Circulatory Shock and Physiology of Its Treatment <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			Lecture Statistical Decision Theory, Test of Hypothesis and Significance <i>E. Çiğdem Altunok</i>
11.00- 11.50	Lecture Nervous Regulation of the Circulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Hemorheology <i>Akif Maharramov</i>	Lecture Development of Circulatory Systems; Veins and Anomalies <i>Alev Cumbul</i>	Group A	Group C	Lecture Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart <i>Turgay Isbir</i>
12.00- 12.50	Lecture Nervous Regulation of the Circulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Hemorheology <i>Akif Maharramov</i>	Invited Speaker			Lecture Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart <i>Turgay Isbir</i>
13.00- 13.50	Lunch Break		Lunch Break	Lunch Break	Lunch Break	Lunch Break
14.00-14.50	Laboratory / Physiology Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Group B	Group C I.L.	Independent Learning	Laboratory / Physiology Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	ICP / CSL: ICP Hand Washing & Wearing Sterile Gloves <i>Arzu Akalın/ Serdar Özdemir</i>
15.00- 15.50	Group A				Group B	Group A, C I.L.
16.00- 16.50	Group C	Group A	Group B I.L.		Laboratory / Histology Review Session <i>Alev Cumbul &amp; Aylin Yaba Uçar</i>	Group D
17.00-17.50					Group A	Group B I.L.
					Group A I.L.	Group B
					Independent Learning	

IL: Independent Learning, CSL: Clinical Skills Learning, Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR SYSTEM**  
**VII. WEEK / 22 – 26 Oct 2018**

	Monday 22-Oct-2018	Tuesday 23-Oct-2018	Wednesday 24-Oct-2018	Thursday 25-Oct-2018	Friday 26-Oct-2018
09.00- 09.50	Assessment Session (Practical Exam)	Independent Learning	Independent Learning	Independent Learning	Independent Learning
10.00- 10.50					Assessment Session Committee I (MCQ)
11.00- 11.50					
12.00- 12.50					
13.00- 13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14.00- 14.50	Assessment Session (Practical Exam)	Independent Learning	Independent Learning	Independent Learning	Program Evaluation Session Review of the Exam Questions, Evaluation of the Committee I Program <i>Secretary of Committee</i>
15.00- 15.50					
16.00- 16.50					
17.00-17.50					Independent Learning