



CARDIOVASCULAR SYSTEM AND RELATED DISORDERS  
YEAR 3 COURSE 1

August 29<sup>th</sup>, 2016 – October 21<sup>st</sup>, 2016

**Coordinator of the Course 3.1**

Asisst. Prof., Mümtaz GÜRAN

**Coordinator of Multidisciplinary Students' LAB.**

Asisst. Prof., Mümtaz GÜRAN

**Coordinator of Clinical Skill LAB.**

Instructor. Berfu Çerçi ÖNGÜN

**Coordinator of Assessment Unite**

Asisst. Prof., Mümtaz GÜRAN, Assist. Prof. Dr.  
Mevhibe HOCAOĞLU, Asisst. Prof., İlke Çetin,

**Coordinator of ICS Res. LAB.**

Assist. Prof. Dr. Mevhibe HOCAOĞLU

**Year 2 Coordinators**

Assoc. Prof., Özgür Kasımay ÇAKIR & Instructor, Burak AKSU

**Module Coordinator**

Assoc. Prof., Özlem SARIKAYA

**Introduction to Clinician Skills(ICS) Coordinators**

Prof., Sibel KALAÇA, Assoc. Prof., Pemra ÜNALAN

**Coordinator of Multidiciplinary Students' LAB.**

Assoc. Prof., Betül KARADEMİR

**Coordinator of Assessment Unite**

Asisst. Prof., Cevdet NACAR

**Vice-Chief Coordinators**

**Assessment**

Asisst. Prof., Cevdet NACAR

**Students' Affairs**

Asisst. Prof., Can ERZİK

**Chief Coordinator**

Assoc. Prof., Hasan YANANLI

**Coordinator of Medical Education Program Evaluation and Development Commission**

Prof., Berrak Ç. YEĞEN

**Educational Consultant**

Assoc. Prof., Mehmet Ali GÜLPINAR

<b>Dean (EMU)</b> <b>Prof., Nahide GÖKÇORA</b>	<b>Acting Dean (MU)</b> <b>Prof., Ömer GÜNAL</b>
---	---

LEARNING OUTCOMES / COMPETENCIES	
<ul style="list-style-type: none"> <li><b>A. Clinical Care: Qualified patient care and community oriented health care</b> <ul style="list-style-type: none"> <li>1. Basic clinical skills</li> <li>2. The organization and management of the patient and the patient care</li> <li>3. The organization and the management of health care delivery services / system</li> <li>4. Health promotion and disease prevention</li> </ul> </li>   <li><b>B. Medical Knowledge and Evidence-Based Medicine</b> <ul style="list-style-type: none"> <li>5. Appropriate information retrieval and management skills</li> <li>6. The integration of knowledge, critical thinking and evidence-based decision making</li> <li>7. Scientific methods and basic research skills</li> </ul> </li>   <li><b>C. Professional Attitudes and Values</b> <ul style="list-style-type: none"> <li>8. Communication skills and effective communication with patients / patient relatives</li> <li>9. Interpersonal relationships and team working</li> <li>10. Ethical and professional values, responsibilities</li> <li>11. Individual, social and cultural values and responsibilities</li> <li>12. Reflective practice and continuing development</li> <li>13. Healthcare delivery systems, management and community oriented health care</li> <li>14. Education and counseling</li> </ul> </li> </ul>	

PHASE-1 LEARNING OBJECTIVES	
<ol style="list-style-type: none"> <li>1. Understanding the normal structures and functions of human body</li> <li>2. Correlating the basic concepts and principles to each other that define health and disease; applying basic concepts and principles to health and disease conditions</li> <li>3. Developing clinical problem solving, clinical reasoning and evaluation skills by integrating biomedical, clinical, social and humanities knowledge</li> <li>4. Gaining basic clinical skills by applications in simulated settings.</li> <li>5. Awareness of the professional values in health and disease processes (professional, individual, societal) and acquisition necessary related skills</li> <li>6. Evaluating critically and synthesizing all the medical evidence and perform respecting scientific, professional and ethical values</li> <li>7. Acquisition skills in reflective thinking and practicing, being open to continuous individual / professional development.</li> </ol>	

PHASES – 1 THEMA/ORGAN SYSTEM-BASED COURSE PROGRAMS	
Year 1, Course 1: Introduction to Cell and Cellular Replication	
Year 1, Course 2: Cellular Metabolism and Transport	
Year 1, Course 3: Development and Organization of Human Body	
Year 1, Course 4: Introduction to Nervous System and Human Behavior	
Year 2, Course 1: Cell and Tissue Injury I	
Year 2, Course 2: Cell and Tissue Injury II	
Year 2, Course 3: Hematopoietic System and Related Disorders	
Year 2, Course 4: Musculoskeletal, Integumentary Systems and Related Disorders	
Year 2, Course 5: Respiratory System and Related Disorders	
<b>Year 3, Course 1: Cardiovascular System and Related Disorders</b>	
Year 3, Course 2: Gastrointestinal System, Metabolism and Related Disorders	
Year 3, Course 3: Nervous System and Related Disorders	
Year 3, Course : Growth, Development, Mental Health and Related Disorders	
Year 3, Course 5: Urinary and Reproductive System and Related Disorders	

Year 3, Course : Growth, Development, Mental Health and Related Disorders

Year 3, Course 5: Urinary and Reproductive System and Related Disorders

## RESPIRATORY SYSTEM AND RELATED DISORDERS

### AIM and LEARNING OBJECTIVES of COURSE

**Aim:** At the end of this committee, second year students will gain knowledge about the development, structure and physiology of the respiratory system and pathogenesis of the disorders related to system. They will also gain knowledge about the signs and symptoms of pulmonary diseases, related risk factors, prevention, diagnosis, and principles of treatment.

**Learning Objectives:** At the end of this committee, second year students will,

- review the development and histology of the respiratory system
- describe the mechanism of breathing and identify the movement, solubility and transport of gas molecules
- understand the factors impairing the normal function of the respiratory system and their pathological reflections on the occurrence of the disease
- gain knowledge about microorganisms that affect the respiratory system and respiratory tract infections
- gain knowledge about the risk groups, risk factors related to pulmonary diseases and preventive measures
- gain knowledge about the major signs and symptoms of the pulmonary diseases
- gain knowledge about the approach to diagnosis, and principles of treatment in pulmonary diseases
- comprehend the hazards of smoking
- define the pharmacotherapy of pulmonary diseases
- acquire skills necessary to perform experimental applications

### ASSESSMENT SYSTEM

**Module examination:** Written exam at the end of the course and performance during the module

**Practical examination:** Practical exams at the end of course

**Course examination:** Written exam at the end of course

### PROGRAM EVALUATION

Evaluation at the end of the course, is done both orally and by using structured evaluation forms

### DEPARTMENTS PARTICIPATING IN COURSE-2.5

- Anatomy
- Biochemistry
- Biophysics
- Cardiology
- Cardiovascular Surgery
- Clinical Pharmacology
- Family Medicine
- Histology and Embryology

- Nuclear Medicine
- Microbiology
- Pathology
- Pediatric Cardiology
- Physiology
- Public Health
- Radiology

### LECTURERS / TUTORS

Ahmet AKICI, Professor of Clinical Pharmacology  
Ahmet İlter GÜNEY Assit. Professor of Medical Genetics  
Alper YILDIRIM, Assist. Professor of Physiology  
Atila KARAALP, Professor of Clinical Pharmacology  
Ayşe GARİP, Assoc. Professor of Biophysics  
Berfu Çerçi ÖNGÜN. Instructor of Anatomy  
Berrak YEĞEN, Professor of Physiology  
Beste Özben SADIÇ, Assoc. Professor of Cardiology  
Betül Karademir Assoc. Professor of Med. BioChemistry  
Figen AKALIN, Professor of Pediatric Cardiology  
Filiz ONAT, Professor of Clinical Pharmacology

Koray AK, Assoc. Professor of Cardiovascular Surgery  
Leyla CİNEL, Professor of Pathology  
M. Kürşat TİGEN, Assoc. Professor of Cardiology  
Nahide GÖKÇORA, Professor of Nuclear Medicine  
Çağdem APAYDIN KAYA Assoc. Prof. of Fam. Medicine  
Nilgün ÇERİKÇİOĞLU, Professor of Microbiology  
Nurten SAYAR, Assoc. Professor of Cardiology  
Okan ERDOĞAN, Professor of Cardiology  
Onur Buğdayıcı, Assist. Prof. of Radiology  
Osman YEŞİLDAĞ, Professor of Cardiology  
Pemra C. ÜNALAN, Assoc. Professor of Family Medicine

Güler SÖYLEDİR, Professor of Microbiology  
 Hızır KURTEL, Professor of Physiology  
 İnci ALİCAN, Professor of Physiology  
 İpek ERBARUT Assist. Professor of Pathology  
 Kemal BERKMAN, Professor of Pharmacology  
 Kemal Türköz Assoc. Professor of Pathology

Pınar Mega Tiber Assist. Professor of Biophysics  
 Saime BATIREL, Assist. Professor of Biochemistry  
 Serap ŞİRVANCI, Professor of Histology and Embryology  
 Sibel SAKARYA, Professor of Public Health  
 Ümit ŞEHİRLİ, Professor of Anatomy  
 Zafer GÖREN, Professor of Pharmacology

#### **READING / STUDYING MATERIALS**

- Pocket Guide to ECG Diagnosis, Edward K.Chung, First edition, Blackwell Science.
- Chou's Electrocardiography in Clinical Practice, 6th edition, Surawicz, Kinilans, 2008, Saunders, Elsevier.
- Clinical Cardiology, Lange Medical Books, Melvin D. Cheitlin, Maurice Sokolow, Malcolm B. Mc Ilroy.
- Cardiac Imaging Secrets, Elsevier Neil J. Weissman MD, Gabriel A. Adelman MD, 2004.
- Clinical Electrocardiography, Ary L. Goldberger, Simplified Approach Mosby-Elsevier, 2008.
- Drugs for the Heart, Lionel H. Opie, Bernard J. Gersh 7th Edition, Saunders Elsevier.
- Current Diagnosis and Treatment in Cardiology, Michael Crawford Lange Medical Books, McGraw Hill, 2006.
- Clinical Skills, Bouchier and Morris, Saunders.
- Braunwald Heart Disease, 8th Edition, W. B. Saunders, Eugene Braunwald, Douglas P.Zipes, Peter Libby, 2012.
- Kardiyoloji, Editörler: İsfendiyar Candan, Derviş Oral, Ankara Üniversitesi, Tıp Fakültesi Yayınları.
- Klinik Kardiyoloji, Hasan Gök, Nobel Kitabevi, 2002.
- Lecture Notes on Cardiology, Huon H Gray, Keith H Dawkins, John M. Morgan, T. Simpson, 4th Edition Blackwell Science.
- Lecture Notes on Clinical Skills, Robert Turner, Roger Blackwood, 3rd Edition, Blackwell Science, 2003.
- Pathophysiology of Heart Disease, Leonard S. Lilly, Lea & Febiger, 2008.
- Manual of Cardiovascular Medicine, 3rd Edition, Brian P Griffin, Eric J. Topol, Lippincott Williams & Wilkins, 2004.
- Cardiovascular Diagnosis The Initial Examination, J. Willis Hurst Mosby Wolfe Medical Communication, 2004.
- Cardiac Drug Therapy, M. Gabriel Kahn, 6th Edition, Saunders.
- Handbook of Cardiovascular Emergencies, 2nd Edition, James W. Hoekstra, Lippincott Williams Wilkins.
- Hurst's The Heart, Manual of Cardiology, 10th Edition, Robert A. O'Rourke, Valentin Fuster, R.Wayne Alexander.
- Cardiovascular Physiology Lange Physiology Series, David E. Rohrman, Louis J. Heller, 6th Edition, 2006.
- A Pocket Guide to Physical Examination and History Taking, Barbara Bates J. B., Lippincott.
- Kardiyoloji Modern Semiyoloji, Prof. Dr. Dinçer Uçak, Nobel Kitabevi, 2003.
- A Colour Atlas of Physical Signs in Cardiovascular Disease, L. M. Shapiro, K. M. Fox Wolfe Medical Publication.
- Netter's Cardiology, Marschall S Runge, Magnus Ohman, Icon Learning Systems 2004.

#### **SUMMARY OF THE COURSE 2.5**

Discipline	Lecture & Group Discussion	Multidisciplinary LAB. & Clinical Skills LAB. Practice	Total
Anatomy	5	2	7
Biochemistry	9		9
Biophysics	11		11
Cardiology	27		27
Cardiovascular Surgery	1		1
Clinical Pharmacology	13		13
Family Medicine	2		11
Histology and Embryology	5	2	7
Nuclear Medicine	1		1

Microbiology	3		3
Pathology	7	1	7
Pediatric Cardiology	5		5
Physiology	18	3	23
Public Health	2		2
<u>Radiology</u>	1		<u>1</u>
Medical Genetics	1		1
<b>Subtotal</b>	<b>103</b>	<b>16</b>	<b>119</b>
PBL Module	10		10
ICP-3: Basic Medical Practices, Clinical Skills LAB., Student Research Activity	1	16	8
<b>Communication in Turkish-III (Foreign Students)</b>			
<b>TOTAL</b>	<b>114</b>	<b>23</b>	<b>127</b>

	THEORETICAL AND PRACTICAL SESSIONS	LECTURER/TUTOR
<b>1st WEEK (29 August - 02 September)</b>		
<b>Monday</b>	<b>29 August</b>	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		
<b>Tuesday</b>	<b>30 August</b>	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30	<b>HOLIDAY</b>	
<b>Wednesday</b>	<b>31 August</b>	
08:40-09:30	Introduction to the course	Dr. Ümit Şehirli
09:40-10:30	Heart and pericardium	Dr. Ümit Şehirli

<b>10:40-11:30</b>	Heart and pericardium	Dr. Ümit Şehirli
<b>11:40-12:30</b>	Heart and pericardium	Dr. Ümit Şehirli
<b>13:40-14:30</b>	Anatomy of the vessels(arterial and venous system)	Dr. Ümit Şehirli
<b>14:40-15:30</b>	<b>Anatomy LAB:</b> Heart and pericardium-Group A	Dr. Ümit Şehirli, Dr. Berfu Çerçi Öngün
<b>15:40-16:30</b>	<b>Anatomy LAB:</b> Heart and pericardium-Group B	Dr. Ümit Şehirli, Dr. Berfu Çerçi Öngün
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>01 September</b>	
<b>08:40-09:30</b>	Lipoprotein metabolism	Dr. Saime Batırel
<b>09:40-10:30</b>	Lipoprotein metabolism	Dr. Saime Batırel
<b>10:40-11:30</b>	Lipoprotein metabolism	Dr. Saime Batırel
<b>11:40-12:30</b>	Vascular events	Dr. Saime Batırel
<b>13:40-14:30</b>	Electrical fields, potential at a point	Dr. Ayşe Garip
<b>14:40-15:30</b>	Electrical fields, potential at a point	Dr. Ayşe Garip
<b>15:40-16:30</b>	Cardiac action potentials	Dr. Ayşe Garip
<b>16:40-17:30</b>	Principles of echocardiography	Dr. Ayşe Garip
<b>Friday</b>	<b>02 September</b>	
<b>08:40-09:30</b>	Principles of hemodynamics	Dr. Ayşe Garip
<b>09:40-10:30</b>	Principles of hemodynamics	Dr. Ayşe Garip
<b>10:40-11:30</b>	Principles of electrocardiography	Dr. Ayşe Garip
<b>11:40-12:30</b>	Principles of electrocardiography	Dr. Ayşe Garip
<b>13:40-14:30</b>	Physiological properties of the cardiac muscle	Dr. İnci Alican
<b>14:40-15:30</b>	Regulation of cardiac functions	Dr. İnci Alican
<b>15:40-16:30</b>	Heart sounds	Dr. İnci Alican
<b>16:40-17:30</b>	Arterial pulse	Dr. İnci Alican

### 2nd Week (05-09 September 2016)

<b>Monday</b>	<b>05 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>	Hyperlipidemias and atherosclerosis	Dr. Betül Karademir
<b>14:40-15:30</b>	Hyperlipidemias and atherosclerosis	Dr. Betül Karademir
<b>15:40-16:30</b>	Cardiac injury and markers	Dr. Betül Karademir
<b>16:40-17:30</b>		

<b>Tuesday</b>	<b>06 September</b>	
<b>08:40-09:30</b>	Introduction to ICS-3	Dr. Pemra Ünalan
<b>09:40-10:30</b>	Elderly patient with leg pain: Primary care approach	Dr. Pemra Ünalan
<b>10:40-11:30</b>	Adult patient with chest pain. Primary care approach	Dr. Pemra Ünalan
<b>11:40-12:30</b>		
<b>13:40-14:30</b>	Biochemical aspects of the metabolic syndrome	Dr. Betül Karademir
<b>14:40-15:30</b>	Biochemical aspects of the metabolic syndrome	Dr. Betül Karademir
<b>15:40-16:30</b>	<b>ELECTIVE COURSE</b>	
<b>16:40-17:30</b>	<b>ELECTIVE COURSE</b>	
<b>Wednesday</b>	<b>07 September</b>	
<b>08:40-09:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>09:40-10:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>10:40-11:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>11:40-12:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>13:40-14:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>14:40-15:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>15:40-16:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>16:40-17:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Respiratory System</b>	Dr. Çiğdem Apaydın Kaya
<b>Thursday</b>	<b>08 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Cardiac cycle	Dr. Berrak Yegen
<b>10:40-11:30</b>	Cardiac cycle	Dr. Berrak Yegen
<b>11:40-12:30</b>	Regulation of blood flow	Dr. Berrak Yegen
<b>13:40-14:30</b>	Principles of ECG	Dr. Berrak Yegen
<b>14:40-15:30</b>	Principles of ECG	Dr. Berrak Yegen
<b>15:40-16:30</b>	ECG and its interpretation	Dr. Berrak Yegen
<b>16:40-17:30</b>		
<b>Friday</b>	<b>09 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		

<b>16:40-17:30</b>		
<b>3rd Week (12-16 September 2016)</b>		
<b>Monday</b>	<b>12 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>	<b>HOLIDAY</b>	
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>13 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>	<b>HOLIDAY</b>	
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Wednesday</b>	<b>14 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>	<b>HOLIDAY</b>	
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>15 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>	<b>HOLIDAY</b>	

13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		
<b>Friday</b>	<b>16 September</b>	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30	<b>HOLIDAY</b>	
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		

#### 4th Week (19-23 September 2016)

<b>Monday</b>	<b>19 September</b>	
08:40-09:30		
09:40-10:30	Approach to the patient with cardiovascular system disease	Dr. Beste Özben Sadıç
10:40-11:30	Principal symptom and general signs in cardiovascular disease	Dr. Beste Özben Sadıç
11:40-12:30	Principal symptom and general signs in cardiovascular disease	Dr. Beste Özben Sadıç
13:40-14:30	Systemic hypertension and hypertensive heart disease	Dr. Osman Yeşildağ
14:40-15:30	Systemic hypertension and hypertensive heart disease	Dr. Osman Yeşildağ
15:40-16:30	<b>PBL Module 1</b>	Dr. Osman Yeşildağ
16:40-17:30	<b>PBL Module 1</b>	Dr. Osman Yeşildağ
<b>Tuesday</b>	<b>20 September</b>	
08:40-09:30	Examination of the heart and vessels	Dr. Osman Yeşildağ
09:40-10:30	Examination of the heart and vessels	Dr. Osman Yeşildağ
10:40-11:30	Diagnostic methods in cardiology	Dr. Osman Yeşildağ
11:40-12:30	Diagnostic methods in cardiology	Dr. Osman Yeşildağ
13:40-14:30	Pericarditis	Dr. Osman Yeşildağ
14:40-15:30	Pulmonary hypertension in cardiology	Dr. Osman Yeşildağ
15:40-16:30	<b>ELECTIVE COURSE</b>	
16:40-17:30	<b>ELECTIVE COURSE</b>	
<b>Wednesday</b>	<b>21 September</b>	
08:40-09:30	ICS-3:Basic Clinical Skills LAB: Cardiovascular System	Dr. Pemra Ünalan
09:40-10:30	ICS-3:Basic Clinical Skills LAB: Cardiovascular System	Dr. Pemra Ünalan

<b>10:40-11:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>11:40-12:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>13:40-14:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>14:40-15:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>15:40-16:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>16:40-17:30</b>	<b>ICS-3:Basic Clinical Skills LAB: Cardiovascular System</b>	Dr. Pemra Ünalan
<b>Thursday</b>	<b>22 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>	Approach to thromboembolic disorders	Dr. Koray Ak
<b>13:40-14:30</b>	Pharmacotherapy in peripheral arterial occlusive diseases	Dr. Filiz Onat
<b>14:40-15:30</b>	Pharmacotherapy in venous thromboembolic disease	Dr. Filiz Onat
<b>15:40-16:30</b>	<b>PBL Module 2</b>	Dr. Koray Ak
<b>16:40-17:30</b>	<b>PBL Module 2</b>	Dr. Koray Ak
<b>Friday</b>	<b>23 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>	Pharmacotherapy of heart failure	Dr. Atila Karaalp
<b>11:40-12:30</b>	Pharmacotherapy of heart failure	Dr. Atila Karaalp
<b>13:40-14:30</b>	Pharmacotherapy of cardiac dysrhythmias	Dr. Atila Karaalp
<b>14:40-15:30</b>	Pharmacotherapy of cardiac dysrhythmias	Dr. Atila Karaalp
<b>15:40-16:30</b>	Pharmacotherapy of hyperlipidemias	Dr. Atila Karaalp
<b>16:40-17:30</b>		
<b>5th Week (26-30 September 2016)</b>		
<b>Monday</b>	<b>26 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>27 September</b>	

<b>08:40-09:30</b>	Principal of hemodynamics	Dr. Hızır Kurtel
<b>09:40-10:30</b>	Principal of hemodynamics	Dr. Hızır Kurtel
<b>10:40-11:30</b>	Regulation of blood pressure	Dr. Hızır Kurtel
<b>11:40-12:30</b>	Regulation of blood pressure	Dr. Hızır Kurtel
<b>13:40-14:30</b>	Regulation of blood pressure	Dr. Hızır Kurtel
<b>14:40-15:30</b>	Circulation through specific organs	Dr. Hızır Kurtel
<b>15:40-16-30</b>	<b>ELECTIVE COURSE</b>	
<b>16:40-17:30</b>	<b>ELECTIVE COURSE</b>	
<b>Wednesday</b>	<b>28 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>	Physiology <b>LAB</b> : Blood pressure, heart sounds, pulse	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>11:40-12:30</b>	Physiology <b>LAB</b> : Blood pressure, heart sounds, pulse	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>13:40-14:30</b>	Physiology <b>LAB</b> : ECG-1	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>14:40-15:30</b>	Physiology <b>LAB</b> : ECG-1	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>15:40-16-30</b>	Physiology <b>LAB</b> : ECG-1	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>16:40-17:30</b>	Physiology <b>LAB</b> : ECG-1	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>Thursday</b>	<b>29 September</b>	
<b>08:40-09:30</b>	Physiology <b>LAB</b> : ECG-2	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>09:40-10:30</b>	Physiology <b>LAB</b> : ECG-2	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>10:40-11:30</b>	Physiology <b>LAB</b> : ECG-2	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>11:40-12:30</b>	Physiology <b>LAB</b> : ECG-2	Dr. Alper Yıldırım Dr. Hızır Kurtel
<b>13:40-14:30</b>		
<b>14:40-15:30</b>	Radiology of the cardiovascular system	Dr. Onur Buğdaycı
<b>15:40-16-30</b>	<b>PBL Module 3</b>	Dr. Alper Yıldırım
<b>16:40-17:30</b>	<b>PBL Module 3</b>	Dr. Alper Yıldırım
<b>Friday</b>	<b>30 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>	Cardiac output	Dr. Alper Yıldırım
<b>11:40-12:30</b>	Coronary circulation	Dr. Alper Yıldırım

<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>	Introduction to cardiovascular pharmacology	Dr. Zafer Gören
<b>16:40-17:30</b>		

**6th Week (03-07 October 2016)**

<b>Monday</b>	<b>03 October</b>	
<b>08:40-09:30</b>	Microbiological approach to cardiovascular infections	Dr. Güner Söyledir
<b>09:40-10:30</b>	Microbiological approach to cardiovascular infections	Dr. Güner Söyledir
<b>10:40-11:30</b>	Genetic basis of the cardiovascular diseases	Dr. Ahmet İlter Güney
<b>11:40-12:30</b>	Pharmacotherapy of hypertension	Dr. Ahmet Akıcı
<b>13:40-14:30</b>	Pharmacotherapy of hypertension	Dr. Ahmet Akıcı
<b>14:40-15:30</b>	Pharmacotherapy of hypertension	Dr. Ahmet Akıcı
<b>15:40-16:30</b>	<b>PBL Module 4</b>	Dr. Ahmet Akıcı
<b>16:40-17:30</b>	<b>PBL Module 4</b>	Dr. Ahmet Akıcı
<b>Tuesday</b>	<b>04 October</b>	
<b>08:40-09:30</b>	Acute rheumatic fever	Dr. Figen Akalın
<b>09:40-10:30</b>	Acute rheumatic fever	Dr. Figen Akalın
<b>10:40-11:30</b>	Congenital cyanotic heart disease	Dr. Figen Akalın
<b>11:40-12:30</b>	Nosocomial fungal infections	Dr. Nilgün Çerikçioğlu
<b>13:40-14:30</b>	Congenital acyanotic heart disease with left to right shunt	Dr. Figen Akalın
<b>14:40-15:30</b>	Congenital heart disease with valvular obstruction or stenosis	Dr. Figen Akalın
<b>15:40-16:30</b>	<b>ELECTIVE COURSE</b>	
<b>16:40-17:30</b>	<b>ELECTIVE COURSE</b>	
<b>Wednesday</b>	<b>05 October</b>	
<b>08:40-09:30</b>	Histology of the heart	Dr. Serap Şirvancı
<b>09:40-10:30</b>	Histology of blood vessels	Dr. Serap Şirvancı
<b>10:40-11:30</b>	Histology of blood vessels	Dr. Serap Şirvancı
<b>11:40-12:30</b>	Development of the cardiovascular system	Dr. Serap Şirvancı
<b>13:40-14:30</b>	Development of the cardiovascular system	Dr. Serap Şirvancı
<b>14:40-15:30</b>	Histology <b>LAB:</b> Histology of heart, blood vessels	Dr. Serap Şirvancı
<b>15:40-16:30</b>	Histology <b>LAB:</b> Histology of heart, blood vessels	Dr. Serap Şirvancı
<b>16:40-17:30</b>	Myocardial scintigraphy and radionuclide ventriculography	Dr. Nahide Gökçora
<b>Thursday</b>	<b>06 October</b>	
<b>08:40-09:30</b>	Ischaemic heart disease	Dr. İpek Erbarut

<b>09:40-10:30</b>	Ischaemic heart disease	Dr. İpek Erbarut
<b>10:40-11:30</b>	Epidemiology of hypertension and rheumatic fever	Dr. Sibel Sakarya
<b>11:40-12:30</b>	Epidemiology of coronary heart disease	Dr. Sibel Sakarya
<b>13:40-14:30</b>	Coronary artery disease	Dr. Nurten Sayar
<b>14:40-15:30</b>	Coronary artery disease	Dr. Nurten Sayar
<b>15:40-16-30</b>	Cardiovascular diseases in special population	Dr. Nurten Sayar
<b>16:40-17:30</b>		
<b>Friday</b>	<b>07 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>	<b>PBL Module 5</b>	Dr. Pınar Mega Tiber
<b>11:40-12:30</b>	<b>PBL Module 5</b>	Dr. Pınar Mega Tiber
<b>13:40-14:30</b>	Viscosity,laminar and turbulent flow	Dr. Pınar Mega Tiber
<b>14:40-15:30</b>	Viscosity,laminar and turbulent flow	Dr. Pınar Mega Tiber
<b>15:40-16-30</b>	Bernouilli's equation,the role of gravity in the circulation	Dr. Pınar Mega Tiber
<b>16:40-17:30</b>		

#### 7th Week (20 June – 24 June, 2016)

<b>Monday</b>	<b>10 October</b>	
<b>08:40-09:30</b>	Clinical electrocardiography	Dr. Okan Erdoğan
<b>09:40-10:30</b>	Clinical electrocardiography	Dr. Okan Erdoğan
<b>10:40-11:30</b>	Cardiac dysrhythmias	Dr. Okan Erdoğan
<b>11:40-12:30</b>	Cardiac dysrhythmias	Dr. Okan Erdoğan
<b>13:40-14:30</b>	Syncope and sudden cardiac death	Dr. Okan Erdoğan
<b>14:40-15:30</b>	Pharmacotherapy of ischemic heart disease and MI	Dr. Kemal Berkman
<b>15:40-16-30</b>	Pharmacotherapy of ischemic heart disease and MI	Dr. Kemal Berkman
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>11 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Acute coronary syndrome	Dr. Mustafa Kürşat Tigen
<b>10:40-11:30</b>	Acute coronary syndrome	Dr. Mustafa Kürşat Tigen
<b>11:40-12:30</b>	Diseases of the aorta and the peripheral blood vessels	Dr. Mustafa Kürşat Tigen
<b>13:40-14:30</b>	Valvular heart disease	Dr. Mustafa Kürşat Tigen
<b>14:40-15:30</b>	Valvular heart disease	Dr. Mustafa Kürşat Tigen
<b>15:40-16-30</b>	<b>ELECTIVE COURSE</b>	
<b>16:40-17:30</b>	<b>ELECTIVE COURSE</b>	

<b>Wednesday</b>	<b>12 October</b>	
<b>08:40-09:30</b>	Heart failure and cardiogenic shock	Dr. Mustafa Kürsat Tigen
<b>09:40-10:30</b>	Heart failure and cardiogenic shock	Dr. Mustafa Kürsat Tigen
<b>10:40-11:30</b>	Cardiomyopathies and myocarditis	Dr. Mustafa Kürsat Tigen
<b>11:40-12:30</b>	Infective endocarditis	Dr. Mustafa Kürsat Tigen
<b>13:40-14:30</b>	Valvular diseases of the heart	Dr. Kemal Türköz
<b>14:40-15:30</b>	Neoplastic diseases of the heart & blood vessels	Dr. Kemal Türköz
<b>15:40-16:30</b>	Pathology <b>LAB</b> : Heart and valvular diseases-Group A	Dr. Kemal Türköz
<b>16:40-17:30</b>	Pathology <b>LAB</b> : Heart and valvular diseases-Group B	Dr. Kemal Türköz
<b>Thursday</b>	<b>13 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Atherosclerosis & hypertensive cardiovascular events	Dr. Zeliha Leyla Cinel
<b>10:40-11:30</b>	Atherosclerosis & hypertensive cardiovascular events	Dr. Zeliha Leyla Cinel
<b>11:40-12:30</b>	Vasculitis	Dr. Zeliha Leyla Cinel
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Friday</b>	<b>14 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		

<b>8th Week (17-21 October 2016)</b>		
<b>Monday</b>	<b>17 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	PRACTICAL EXAM	
<b>10:40-11:30</b>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>		
<b>14:40-15:30</b>		

15:40-16:30		
16:40-17:30		
Tuesday	18 October	
08:40-09:30		
09:40-10:30	PRACTICAL EXAM	
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		
Wednesday	19 October	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		
Thursday	20 October	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		
Friday	21 October	
08:40-09:30		
09:40-10:30	THEORETICAL EXAM	
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		