



## CELL AND TISSUE INJURY - I

YEAR 2 COURSE 1

Aug 29<sup>th</sup>, 2016 – Oct 20<sup>th</sup>, 2016

### Coordinator of the Course 2.1

Instructor. Berfu Çerçi ÖNGÜN

#### Coordinator of Multidisciplinary Students' Lab.

Asist. Prof., Mümtaz GÜRAN

#### Coordinator of Clinical Skill Lab.

Instructor. Berfu Çerçi ÖNGÜN

#### Coordinator of Assessment Unite

Asist. Prof., Mümtaz GÜRAN, Assist. Prof. Dr.  
Mevhibe HOCAOĞLU, Asist. Prof., İlke ÇETİN, Dr.  
Berfu ÇERÇİ ÖNGÜN

#### 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 Multidisciplinary Students' Lab.

Assoc. Prof., Betül KARADEMİR

#### Coordinator of Assessment Unite

Asist. Prof., Cevdet NACAR

<b>Vice-Chief Coordinators</b>	
<b>Assessment</b> Asisst. Prof., Cevdet NACAR	<b>Students' Affairs</b> Asisst. Prof., Can ERZİK
<b>Chief Coordinator</b> Assoc. Prof., Hasan YANANLI	<b>Coordinator of Medical Education Program Evaluation and Development Commission</b> Prof., Berrak Ç. YEĞEN
<b>Educational Consultant</b> Assoc. Prof., Mehmet Ali GÜLPINAR	
<b>Dean (EMU)</b> Prof., Nahide GÖKÇORA	<b>Acting Dean (MU)</b> Prof., Ömer GÜNAL

### LEARNING OUTCOMES / COMPETENCIES

- A. **Clinical Care: Qualified patient care and community oriented health care**
  1. Basic clinical skills
  2. The organization and management of the patient and the patient care
  3. The organization and the management of health care delivery services / system
  4. Health promotion and disease prevention
- B. **Medical Knowledge and Evidence-Based Medicine**
  5. Appropriate information retrieval and management skills
  6. The integration of knowledge, critical thinking and evidence-based decision making
  7. Scientific methods and basic research skills
- C. **Professional Attitudes and Values**
  8. Communication skills and effective communication with patients / patient relatives
  9. Interpersonal relationships and team working
  10. Ethical and professional values, responsibilities
  11. Individual, social and cultural values and responsibilities
  12. Reflective practice and continuing development
  13. Healthcare delivery systems, management and community oriented health care
  14. Education and counseling

### PHASE-1 LEARNING OBJECTIVES

1. Understanding the normal structures and functions of human body
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
3. Developing clinical problem solving, clinical reasoning and evaluation skills by integrating biomedical, clinical, social and humanities knowledge
4. Gaining basic clinical skills by applications in simulated settings.
5. Awareness of the professional values in health and disease processes (professional, individual, societal) and acquisition necessary related skills
6. Evaluating critically and synthesizing all the medical evidence and perform respecting scientific, professional and ethical values
7. Acquisition skills in reflective thinking and practicing, being open to continuous individual / professional development.

## 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 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

Year 3, Course 1: Cardiovascular System and Related Disorders

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

## CELL AND TISSUE INJURY - I

### AIM and LEARNING OBJECTIVES of COURSE

**Aim:** At the end of this course, second year students will be able to broaden their basic science knowledge to include the understanding of how certain alterations in bodily processes may manifest as disease and gain fundamental knowledge about the processes underlying human diseases, as the scientific foundation for developing clinical skills.

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

- describe using proper nomenclature, the etiology, pathogenesis, structural and functional changes at cellular and tissue level;
- describe in detail what happens to cells and tissues in response to abnormal stimuli;
- explain the basic principles of human immune system as it relates to defense against disease (innate, humoral, cell mediated);
- describe the principles of classifying infectious microorganisms and their pathogenic properties;
- gain knowledge about viruses and viral pathogenesis;
- gain knowledge about parasites and pathogenesis of parasitic diseases;
- identify major drug classes and prototype drug(s) for each class.

<p style="text-align: center;"><b>ASSESSMENT SYSTEM</b></p> <p><b>Module examination:</b> Written exam at the end of the course and performance during the module</p> <p><b>Practical examination:</b> Practical exams at the end of course</p> <p><b>Course examination:</b> Written exam at the end of course</p>	<p style="text-align: center;"><b>PROGRAM EVALUATION</b></p> <p>Evaluation at the end of the course, is done both orally and by using structured evaluation forms</p>
<p><b>DEPARTMENTS PARTICIPATING IN COURSE-2.1</b></p>	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Biochemistry</li> <li><input type="checkbox"/> Biophysics</li> <li><input type="checkbox"/> Child Health and Diseases</li> <li><input type="checkbox"/> Family Medicine</li> <li><input type="checkbox"/> Immunology</li> <li><input type="checkbox"/> Medical Genetics</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Microbiology</li> <li><input type="checkbox"/> Nuclear Medicine</li> <li><input type="checkbox"/> Pathology</li> <li><input type="checkbox"/> Pharmacology</li> <li><input type="checkbox"/> Physiology</li> </ul>
<p><b>LECTURERS / TUTORS</b></p>	
<p>Attila KARAALP, Professor of Clinical Pharmacology  Ayşegül KARAHASAN, Professor of Microbiology  Alper Yıldırım, Assist. Professor of Physiology  Berfu Çerçi ÖNGÜN, Instructor of Anatomy  İlke Çetin, Professor of Biostatistics  Betül KARADEMİR, Assoc. Professor of Biochemistry  Çiğdem ÇELİKEL, Professor of Pathology  Elif DAĞLI, Professor of Child Health and Disease  Güner SÖYLEDİR, Professor of Microbiology  Hülya CABADAK, Assoc. Professor of Biophysics  İnci ALİCAN, Professor of Physiology  Ayşe GARİP, Assoc. Professor of Biophysics  Hızır KURTEL, Professor of Physiology  Ufuk Över Hasdemir, Proffessor of Medical Microbiology  Nilgün Çerikçioğlu, Professor of Medical Microbiology  Pelin Bağcı, Assoc. Proffessor of Medical Pathology  Pınar Ata, Assoc. Proffessor of Medical Genetics</p>	<p>Mümtaz GÜRAN, Assist. Professor of Microbiology Nahide GÖKÇORA, Professor of Nuclear Medicine  Nurver Ülger, Assoc. Professor of Medical Microbiology  Pınar Mega TİBER, Assist. Professor of Biophysics  Rezzan GÜLHAN, Professor of Pharmacology  Sibel Sakarya, Prof. of Public Health  Süheyla BOZKURT, Assoc. Professor of Pathology  Zafer GÖREN, Professor of Pharmacology  Ahmet İlter Güney, Assist. Proffessor of Medical Genetics  Goncagül Haklar, Professor of Medical Biochemistry  Pemra Ünalın, Assoc.Professor of Family Medicine  Handan Kaya, Professor of Medical Pathology  İpek Erbarut, Assist. Proffessor of Medical Pathology  Medine Gülçebi İdriz Oğlu, Assist. Proffessor of Medical Pharmacology  Mehmet Burak Aksu, Assist. Proffessor of Medical Microbiology  Saliha Serap Çifçili, Assoc. Proffessor of Family Medicine  Mehmet Akman, Assoc. Proffessor of Family Medicine  Tunç Akkoç, Proffessor of Pediatrics  Zeynep Arzu İlki, Assoc. Proffessor of Medical Microbiology</p>

### READING / STUDYING MATERIALS

- Basics and Clinical Pharmacology (Bertram G Katzung).
- Clinical Pharmacology (Laurence DR, Bennet PN).
- Pharmacological Basis of Therapeutics (Goddman & Gilman's).
- Radiation protection, Ch.5 (Mary Alice Statkiewicz)
- Radiobiology for the radiologist (Eric J.Hall)
- Physics of Life Sciences (Alan H.Cromer)
- Clinical Biophysics (Anbar)
- Radiologic Science for Technologist (S.C.Bushong)
- Textbook of Physiology (Guyton AC).
- Basic Pathology (Stanley L. Robbins, Marcia Angel, Vinay Kumar).
- Histology and Cell Biology: an Introduction to Pathology (Abraham L. Kierszenbaum).
- Review Medical Microbiology (Ernest Jawetz et al.).
- Medical Microbiology (Cedric Mims et al.).
- Review of Medical Microbiology (Patric R. Murray, Ken S. Rosenthal).
- Cellular and Molecular Immunology 5th Edition (Abbas, Lichtman).
- Kuby Immunology 4th Edition (Goldsby, Kindt, Osborne).
- Immunobiology 6th Edition (Janeway, Travers, Walport, Schlomchik).
- Immunology, Infection and Immunity (Pier, Lyczak, Wetzler)

### SUMMARY OF THE COURSE 2.1

Discipline	Lecture & Group Discussion	Multidisciplinary Lab. & Clinical Skills Lab. Practice	Total
Biochemistry	4		4
Biophysics	12		12
Child Health and Diseases	2		2
Family Medicine	4		4
Immunology	12		12
Microbiology	24	6	30
Nuclear Medicine	2		2
Pathology	15	7	22
Pharmacology	18		18
Physiology	5		5
Medical Genetics	5		5
<b>Subtotal</b>	103	13	116
<b>PBL Module</b>			

ICS-2: Basic Clinical Skills, Human in Medicine, Students Research Activity	15	14	29
Communication in Turkish-III (Foreign Students)			
<b>TOTAL</b>	<b>118</b>	<b>27</b>	<b>145</b>

THEORETICAL AND PRACTICAL SESSIONS		LECTURER/TUTOR
<b>1st WEEK (29 Aug – 02 Sept, 2016)</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	<b>HOLIDAY</b>	
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>Wednesday</b>	<b>31 August</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Introduction to the course and opening lecture	Dr. Atila Karaalp
<b>10:40-11:30</b>	Introduction to pharmacology	Dr. Atila Karaalp
<b>11:40-12:30</b>	Routes of drug administration	Dr. Atila Karaalp
<b>13:40-14:30</b>	Health effects of tobacco	Dr. Elif Dađlı
<b>14:40-15:30</b>	Health effects of tobacco	Dr. Elif Dađlı
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>01 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>	Pathogenesis of parasitic disease	Dr. Nurver Ülger
<b>13:40-14:30</b>	Blood and tissue protozoa	Dr. Nurver Ülger
<b>14:40-15:30</b>	Body temperature and its regulation	Dr. İnci Alican
<b>15:40-16:30</b>	Body temperature and its regulation	Dr. İnci Alican
<b>16:40-17:30</b>	Intestinal and urogenital protozoa	Dr. Nurver Ülger
<b>Friday</b>	<b>02 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Intestinal and tissue nematodes	Dr. Nurver Ülger
<b>10:40-11:30</b>	Cestodes and trematodes	Dr. Nurver Ülger
<b>11:40-12:30</b>	Intestinal and tissue nematodes	Dr. Nurver Ülger
<b>13:40-14:30</b>	Effects of the electromagnetic waves on human health	Dr. Ayşe Garip
<b>14:40-15:30</b>		

15:40-16:30		
16:40-17:30		
<b>2nd Week (September 05-09, 2016)</b>		
<b>Monday</b>	<b>05 September</b>	
08:40-09:30		
09:40-10:30		
10:40-11:30		
11:40-12:30		
13:40-14:30	Physiology of microcirculation and edema formation	Dr. Hızır Kurtel
14:40-15:30	Physiology of microcirculation and edema formation	Dr. Hızır Kurtel
15:40-16:30		
16:40-17:30		
<b>Tuesday</b>	<b>06 September</b>	
08:40-09:30		
09:40-10:30		
10:40-11:30	Eicosanoids and related compounds	Dr. Betül Karademir
11:40-12:30	Eicosanoids and related compounds	Dr. Betül Karademir
13:40-14:30	Electromagnetic spectrum	Dr. Pınar Mega Tiber
14:40-15:30	Radioactivity: the decay law; physical half-life, biological half-life	Dr. Pınar Mega Tiber
15:40-16:30	Radioactivity: the decay law; physical half-life, biological half-life	Dr. Pınar Mega Tiber
16:40-17:30	Dosimetry, basic concepts	Dr. Pınar Mega Tiber
<b>Wednesday</b>	<b>07 September</b>	
08:40-09:30	Types of radiation	Dr. Pınar Mega Tiber



<b>09:40-10:30</b>	Types of radiation	Dr. Pinar Mega Tiber
<b>10:40-11:30</b>	Interaction of radiation with matter	Dr. Pinar Mega Tiber
<b>11:40-12:30</b>	Interaction of radiation with matter	Dr. Pinar Mega Tiber
<b>13:40-14:30</b>	Biochemical aspect of cell death	Dr. Goncagül Haklar
<b>14:40-15:30</b>	Biochemical aspect of cell death	Dr. Goncagül Haklar
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>08 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>	Microbial pathogenicity and virulence	Dr. Zeynep Arzu İlki
<b>13:40-14:30</b>	Cultivation and identification of bacteria	Dr. Zeynep Arzu İlki
<b>14:40-15:30</b>	General pharmacokinetic principles-1	Dr. Rezzan Gülhan
<b>15:40-16:30</b>	General pharmacokinetic principles-2	Dr. Rezzan Gülhan
<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>	General pharmacokinetic principles-3	Dr. Rezzan Gülhan
<b>10:40-11:30</b>	General pharmacokinetic principles-4	Dr. Rezzan Gülhan
<b>11:40-12:30</b>	Basic principles of drug toxicity	Dr. Rezzan Gülhan
<b>13:40-14:30</b>	Introduction to chemotherapeutics	Dr. Rezzan Gülhan
<b>14:40-15:30</b>	Antiseptics and disinfectants	Dr. Rezzan Gülhan
<b>15:40-16:30</b>	Drug-induced immune response and antiallergic treatment	Dr. Rezzan Gülhan

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<b>3rd Week (12-16 September 2016)</b>		
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<b>Monday</b>	<b>12 September</b>	
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<b>08:40-09:30</b>	<b>HOLIDAY</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>13 September</b>	
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<b>08:40-09:30</b>	<b>HOLIDAY</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>		

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<b>Wednesday</b>	<b>14 September</b>	
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<b>08:40-09:30</b>	<b>HOLIDAY</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>		

14:40-15:30		
15:40-16:30		
16:40-17:30		
<b>Thursday</b>	<b>15 September</b>	
08:40-09:30	<b>HOLIDAY</b>	
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>Friday</b>	<b>16 September</b>	
08:40-09:30	<b>HOLIDAY</b>	
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>4th Week (19-23 September 2016)</b>		
<b>Monday</b>	<b>19 September</b>	
08:40-09:30		
09:40-10:30		

<b>10:40-11:30</b>		
<b>11:40-12:30</b>	Mechanism of drug action	Dr. Zafer Gören
<b>13:40-14:30</b>	Mechanism of drug action	Dr. Zafer Gören
<b>14:40-15:30</b>	Autocoids	Dr. Zafer Gören
<b>15:40-16:30</b>		
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>20 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Autocoids	Dr. Zafer Gören
<b>10:40-11:30</b>	Autocoids	Dr. Zafer Gören
<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>Wednesday</b>	<b>21 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>		
<b>10:40-11:30</b>	Bioterrorism: a global threat	Dr. Ayşegül Karahasan
<b>11:40-12:30</b>	DNA viruses: Adenoviruses, Parvoviruses, Papavoviruses, and Poxviruses	Dr. Ayşegül Karahasan
<b>13:40-14:30</b>	Patient with fever and rash	Dr. Saliha Serap Çiğçili
<b>14:40-15:30</b>	RNA viruses: Orthomyxoviruses and Paramyxoviruses	Dr. Ayşegül Karahasan
<b>15:40-16:30</b>	RNA viruses: Togaviruses, Bunyaviruses, Flaviviruses and other RNA viruses	Dr. Ayşegül Karahasan
<b>16:40-17:30</b>		

<b>Thursday</b>	<b>22 September</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	Transplantation pathology	Dr. Handan Kaya
<b>10:40-11:30</b>	Amyloidosis	Dr. Handan Kaya
<b>11:40-12:30</b>	Physiology of pain	Dr. Alper Yıldırım
<b>13:40-14:30</b>	Cell injury and cell death	Dr. Handan Kaya
<b>14:40-15:30</b>	Cell injury and cell death	Dr. Handan Kaya
<b>15:40-16:30</b>	Chronic inflammatory response	Dr. Handan Kaya
<b>16:40-17:30</b>		
<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>		
<b>11:40-12:30</b>		
<b>13:40-14:30</b>	Molecular mechanisms of necrosis and apoptosis	Dr. Ahmet Arman
<b>14:40-15:30</b>	Signal transduction of inflammation	Dr. Ahmet Arman
<b>15:40-16:30</b>		
<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>	Pathology of hypersensitivity reactions	Dr. Süheyla Bozkurt
<b>14:40-15:30</b>	Pathology of autoimmune disorders	Dr. Süheyla Bozkurt
<b>15:40-16:30</b>	Basic principles of immunopathology	Dr. Süheyla Bozkurt
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>27 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>Wednesday</b>	<b>28 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>Thursday</b>	<b>29 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>Friday</b>	<b>30 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>	Introduction to pathology	Dr. Çiğdem Ataizi Çelikel
<b>14:40-15:30</b>	Haemodynamic disorders	Dr. Çiğdem Ataizi Çelikel
<b>15:40-16:30</b>	Thromboembolic disease	Dr. Çiğdem Ataizi Çelikel
<b>16:40-17:30</b>	Thromboembolic disease	Dr. Çiğdem Ataizi Çelikel
<b>6th Week (03-07 October 2016)</b>		
<b>Monday</b>	<b>03 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	RNA viruses: Retroviruses and HIV	Dr. Ufuk Över Hasdemir
<b>10:40-11:30</b>	RNA viruses: Picornaviruses, Rhabdoviruses and Reoviruses	Dr. Ufuk Över Hasdemir
<b>11:40-12:30</b>	Mechanism of viral pathogenesis	Dr. Güner Söyledir
<b>13:40-14:30</b>	DNA viruses: Herpes viruses	Dr. Ufuk Över Hasdemir

<b>14:40-15:30</b>	Hepatitis viruses	Dr. Güner Söyledir
<b>15:40-16:30</b>	Microbial toxins	Dr. Güner Söyledir
<b>16:40-17:30</b>		
<b>Tuesday</b>	<b>04 October</b>	
<b>08:40-09:30</b>	Pharmacogenetics	Dr. Ahmet İlder Güney
<b>09:40-10:30</b>	Pharmacogenetics	Dr. Ahmet İlder Güney
<b>10:40-11:30</b>	Host parasite interactions	Dr. Güner Söyledir
<b>11:40-12:30</b>	Host parasite interactions	Dr. Güner Söyledir
<b>13:40-14:30</b>	Microbiology of water, milk and air	Dr. Nilgün Çerikçioğlu
<b>14:40-15:30</b>	Human microbiota	Dr. Nilgün Çerikçioğlu
<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>		
<b>09:40-10:30</b>	Pharmacotherapy of viral infections	Dr. Medine İdriz Oğlu
<b>10:40-11:30</b>	Pharmacotherapy in parasitic infections	Dr. Medine İdriz Oğlu
<b>11:40-12:30</b>	Adaptive cell reactions and abnormal accumulations	Dr. İpek Erbarut
<b>13:40-14:30</b>	Acute inflammatory response	Dr. İpek Erbarut
<b>14:40-15:30</b>	Acute inflammatory response	Dr. İpek Erbarut
<b>15:40-16:30</b>	<b>Pathology LAB:</b> General principals of macroscopic evaluation (slide lecture)	Dr. İpek Erbarut
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>06 October</b>	
<b>08:40-09:30</b>	Application of nuclear medicine and radiotherapy	Dr. Nahide Gökçora
<b>09:40-10:30</b>	Tissue renewal and repair: regeneration, healing and fibrosis	Dr. Pelin Bağcı



<b>10:40-11:30</b>	<b>Pathology LAB:</b> Changes in the size, consistency, colour, and composition of organs	Dr. Pelin Bağcı
<b>11:40-12:30</b>	<b>Pathology LAB:</b> Changes in the size, consistency, colour, and composition of organs	Dr. Pelin Bağcı
<b>13:40-14:30</b>	<b>Pathology LAB:</b> Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı
<b>14:40-15:30</b>	<b>Pathology LAB:</b> Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı
<b>15:40-16:30</b>	<b>Pathology LAB:</b> Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı
<b>16:40-17:30</b>	Tissue and organ response to radiation and genetic effects of radiation	Dr. Nahide Gökçora
<b>Friday</b>	<b>07 October</b>	
<b>08:40-09:30</b>	Introduction to primary care and family medicine	Dr. Mehmet Akman
<b>09:40-10:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>10:40-11:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>11:40-12:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>13:40-14:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>14:40-15:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>15:40-16:30</b>	<b>ICS2:</b> Research Proposal Presentations	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>16:40-17:30</b>		
<b>7th Week (10-14 October 2016)</b>		
<b>Monday</b>	<b>10 October</b>	
<b>08:40-09:30</b>	<b>ICS-2:</b> Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
<b>09:40-10:30</b>	<b>ICS-2:</b> Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman

10:40-11:30	ICS-2:Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
11:40-12:30	ICS-2:Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
13:40-14:30	ICS-2:Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
14:40-15:30	ICS-2:Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
15:40-16:30	ICS-2:Student Research Activity	Dr. Sibel Sakarya Dr. Mehmet Akman
16:40-17:30		
<b>Tuesday</b>	<b>11 October</b>	
08:40-09:30		
09:40-10:30	<b>Microbiology LAB:</b> Normal body flora	Dr. Mümtaz Güran
10:40-11:30	<b>Microbiology LAB:</b> Examination of protozoa	Dr. Mümtaz Güran
11:40-12:30	<b>Microbiology LAB:</b> Examination of protozoa	Dr. Mümtaz Güran
13:40-14:30	<b>Microbiology LAB:</b> Examination of helminths and medically important arthropods	Dr. Mehmet Burak Aksu
14:40-15:30	<b>Microbiology LAB:</b> Examination of helminths and medically important arthropods	Dr. Mehmet Burak Aksu
15:40-16:30	<b>ELECTIVE COURSE</b>	
16:40-17:30	<b>ELECTIVE COURSE</b>	
<b>Wednesday</b>	<b>12 October</b>	
08:40-09:30	Miscellaneous viruses; Coronavirus, Flavivirus, Calicivirus	Dr. Mehmet Burak Aksu
09:40-10:30	Laboratory diagnosis of viral infections	Dr. Mehmet Burak Aksu
10:40-11:30	Laboratory diagnosis of viral infections	Dr. Mehmet Burak Aksu
11:40-12:30	<b>Microbiology LAB:</b> Normal body flora	Dr. Mümtaz Güran
13:40-14:30	Cellular aging and death	Dr. Pinar Ata

<b>14:40-15:30</b>	Immunogenetics of transplantation	Dr. Pinar Ata
<b>15:40-16:30</b>	Immunogenetics of transplantation	Dr. Pinar Ata
<b>16:40-17:30</b>		
<b>Thursday</b>	<b>13 October</b>	
<b>08:40-09:30</b>	Introduction to innate immune system	Dr. Tunç Akkoç
<b>09:40-10:30</b>	Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions	Dr. Tunç Akkoç
<b>10:40-11:30</b>	Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions	Dr. Tunç Akkoç
<b>11:40-12:30</b>	Major histocompatibility complex (MHC) molecules, antigen processing and presentation	Dr. Tunç Akkoç
<b>13:40-14:30</b>	Cytokines	Dr. Tunç Akkoç
<b>14:40-15:30</b>	Cytokines	Dr. Tunç Akkoç
<b>15:40-16:30</b>	Development of T cells, T lymphocyte signaling mechanisms and activation	Dr. Tunç Akkoç
<b>16:40-17:30</b>	B Lymphocyte: Development and biology	Dr. Tunç Akkoç
<b>Friday</b>	<b>14 October</b>	
<b>08:40-09:30</b>	Bridging innate and adaptive immunity dendritic cells, NK cells, NKT cells and other innate-like T and B lineages	Dr. Tunç Akkoç
<b>09:40-10:30</b>	Structure and function of complement system	Dr. Tunç Akkoç
<b>10:40-11:30</b>	Immune responses to extracellular and intracellular infections	Dr. Tunç Akkoç
<b>11:40-12:30</b>	Immune responses to extracellular and intracellular infections	Dr. Tunç Akkoç
<b>13:40-14:30</b>	Molecular and radiobiological behavior	Dr. Hülya Cabadak
<b>14:40-15:30</b>	Effects of ionizing radiation on the cell and organism	Dr. Hülya Cabadak
<b>15:40-16:30</b>	Radiation protection	Dr. Hülya Cabadak

**8th Week (17-21 October 2016)**

<b>Monday</b>	<b>17 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	<b>PRACTICAL EXAM</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>18 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	<b>PRACTICAL EXAM</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>Wednesday</b>	<b>19 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>Thursday</b>	<b>20 October</b>	
<b>08:40-09:30</b>		
<b>09:40-10:30</b>	<b>Y2C1 TEORETICAL EXAM</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>		