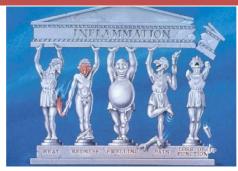


# MARMARA UNIVERSITY – EASTERN MEDITERRANEAN UNIVERSITY INTERNATIONAL MEDICAL SCHOOL





CELL AND TISSUE INJURY - I YEAR 2 COURSE 1 Sep 03<sup>rd</sup>, 2018 – Oct 18<sup>th</sup>, 2018

#### **Year 2 Coordinators**

Assoc. Prof., Özgür Kasımay ÇAKIR & Assist. Prof., Burak AKSU & Assist. Prof., Masoud AFSHANI

<b>Module Coordinators</b> Prof., Özlem SARIKAYA <b>&amp;</b> Inst. Berfu Çerçi ÖNGÜN	Introduction to Clinician Skills (ICS) Coordinators Prof., Pemra ÜNALAN & Assist. Prof. Bülent SEZGIN		
Coordinators of Clinical Skill Lab.	Coordinators of ICS Res. Lab.		
Prof., Pemra ÜNALAN & Assist. Prof. Bülent SEZGIN	Prof., Sibel SAKARYA & Assist. Prof., İlke AKÇAY		
Coordinators of Multidiciplinary Students' Lab.	Cooordinators of Assessment Unite		
Assoc. Prof., Betül KARADEMİR & Assist. Prof., Mümtaz GÜRAN  Assist. Prof., Cevdet NACAR & Assist. Prof. ERZİK & Assist. Prof., Hasan TOPER & Assist. Eren SAKALLI & Assist. Prof., Masoud AFSI			
Vice-Chief Coordinators			
	Assessment Students' Affairs		
Assessment	Students' Affairs		
Assessment Assist. Prof., Cevdet NACAR & Assist. Prof., H. Eren SAKALLI	Students' Affairs Assist. Prof., Can ERZİK & Assist. Prof., İlke AKÇAY & Assist. Prof., Mümtaz GÜRAN		
Assist. Prof., Cevdet NACAR & Assist. Prof., H. Eren	Assist. Prof., Can ERZİK & Assist. Prof., İlke AKÇAY &		
Assist. Prof., Cevdet NACAR & Assist. Prof., H. Eren SAKALLI  Chief Coordinator  Assoc. Prof., Hasan YANANLI & Assist. Prof., Mümtaz GÜRAN	Assist. Prof., Can ERZİK & Assist. Prof., İlke AKÇAY & Assist. Prof., Mümtaz GÜRAN  Coordinator of Medical Education Program Evaluation and Development Commission		
Assist. Prof., Cevdet NACAR & Assist. Prof., H. Eren SAKALLI  Chief Coordinator  Assoc. Prof., Hasan YANANLI & Assist. Prof., Mümtaz GÜRAN  Educationa	Assist. Prof., Can ERZİK & Assist. Prof., İlke AKÇAY & Assist. Prof., Mümtaz GÜRAN  Coordinator of Medical Education Program Evaluation and Development Commission  Prof., Berrak Ç. YEĞEN		
Assist. Prof., Cevdet NACAR & Assist. Prof., H. Eren SAKALLI  Chief Coordinator  Assoc. Prof., Hasan YANANLI & Assist. Prof., Mümtaz GÜRAN  Educationa	Assist. Prof., Can ERZİK & Assist. Prof., İlke AKÇAY & Assist. Prof., Mümtaz GÜRAN  Coordinator of Medical Education Program Evaluation and Development Commission Prof., Berrak Ç. YEĞEN		

**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 4: 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.

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		and by using structured evaluation forms		
	DEPARTMENTS PARTICIPATING IN COURSE-2.1			
	Biochemistry	☐ Microbiology		
	Biophysics	□ Nuclear Medicine		
	Child Health and Diseases	□ Pathology		
☐ Family Medicine		□ Pharmacology		
	Immunology	□ Physiology		
	Medical Genetics			
	LECTURERS	/ TUTORS		

Ahmet ARMAN, Professor of Medical Genetics Alper YILDIRIM, Assist. Professor of Physiology Atila KARAALP, Professor of Clinical Pharmacology Arzu İLKİ, Assoc. Professor of Medical Microbiology Ayşe GARİP, Assoc. Professor of Biophysics Aysegül KARAHASAN, Professor of Microbiology Bülent Sezgin, Assist. Professor of Internal Medicine Burak AKSU, Assist. Professor of Medical Microbiology Cemal GÜRKAN, Instructor of Forensic Sciences Cihan TÜCCAR, Instructor of Emergency Medicine Çiğdem ATAİZİ, Professor of Pathology Deniz FILINTE, Assist. Professor of Medical Pathology Didem RIFKI, Instructor of ENT Duygu GENÇALP, Instructor of Biochemistry Elif DAĞLI, Professor of Child Health and Disease Emine Özerinç, Instructor of Turkish Language Eren SAKALLI, Assist. Prof. of Clinical Pharmacology Ergül ALTUNDAĞ, Assist. Prof. of Biochemistry Funda EREN, Professor of Medical Pathology Goncagül HAKLAR, Professor of Medical Biochemistry Güner SÖYLEDİR, Professor of Microbiology Handan KAYA, Professor of Medical Pathology Hasan Toper, Assist. Professor of Medical Pathology

Hizir KURTEL, Professor of Physiology Hülya CABADAK, Professor of Biophysics İlke AKÇAY, Assist. Professor of Biostatistics İlter GÜNEY, Assoc. Professor of Medical Genetics ipek ERBARUT, Assist. Professor of Medical Pathology Inci ALİCAN, Professor of Physiology Mümtaz GÜRAN, Assist. Prof. of Medical Microbiology Nahide GÖKÇORA, Professor of Nuclear Medicine Nevber İSTILLOZLU, Instructor of Turkish Language Nilgün ÇERIKÇIOĞLU, Professor of Medical Microbiology Nurtane KARAGİL, Instructor of Arts and Crafts Nurver ÜLGER, Professor of Medical Microbiology Pelin BAĞCI, Assoc. Professor of Medical Pathology Pemra Ünalan, Professor of Family Medicine Pinar ATA, Professor of Medical Genetics Pinar Mega TİBER, Assoc. Professor of Biophysics Rezzan GÜLHAN, Professor of Pharmacology Serap ÇIFÇILI, Assoc. Professor of Family Medicine Süheyla BOZKURT, Professor of Pathology Tunç AKKOÇ, Professor of Immunology Ufuk HASDEMIR, Professor of Medical Microbiology Zafer GÖREN, Professor of Pharmacology

#### **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	
Immunology	12		12	
Family Medicine	1		1	
Microbiology	25	8	33	
Nuclear Medicine	2		2	
Pathology	16	7	23	
Pharmacology	17		17	
Physiology	5		5	
Medical Genetics	7		7	
Subtotal	103	15	118	
ICS-2: Research Proposal Presentations	6		6	
ICS-2: Students Research Activity	20		20	
ICS-2: History Taking & Introduction to Physical Examination		16	16	
TFMS 201- Turkish For Medical Students-	22		22	
TFMS 201- Turkish For Medical Students- III (Interactive session for Foreign Students)	8		8	
Elective Course-II MDCN181 MDCN182 MDCN184	4		4	
TOTAL	163	31	194	

	THEORETICAL AND PRACTICAL SESSIONS	LECTURER/TUTOR
	1 <sup>st</sup> WEEK (03 Sep – 7 Sep, 2018)	
Monday	03 September	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	
11:40-12:30	Introduction to the course and opening lecture	Dr. Masoud Afshani
13:40-14:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
14:40-15:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
15:40-16-30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
16:40-17:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
Tuesday	04 September	
08:40-09:30	Radioactivity: the decay law; physical half-life, biological half-life	Dr. Pınar Mega Tiber
09:40-10:30	Radioactivity: the decay law; physical half-life, biological half-life	Dr. Pınar Mega Tiber
10:40-11:30	Types of radiation	Dr. Pınar Mega Tiber
11:40-12:30	Types of radiation	Dr. Pınar Mega Tiber
13:40-14:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
14:40-15:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
15:40-16-30	STUDY TIME	
16:40-17:30	STUDY TIME	
Wednesday	05 September	
08:40-09:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
09:40-10:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
10:40-11:30	Microbial pathogenicity and virulence	Dr. Arzu İlki
11:40-12:30	Cultivation and identification of bacteria	Dr. Arzu İlki

13:40-14:30	Interaction of radiation with matter	Dr. Pınar Mega Tiber
14:40-15:30	Interaction of radiation with matter	Dr. Pınar Mega Tiber
15:40-16-30	Dosimetry, basic concepts	Dr. Pınar Mega Tiber
16:40-17:30	Electromagnetic spectrum	Dr. Pınar Mega Tiber
Thursday	06 September	
08:40-09:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
09:40-10:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
10:40-11:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
11:40-12:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
13:40-14:30	Biochemical aspect of cell death	Dr. Goncagül Haklar
14:40-15:30	Biochemical aspect of cell death	Dr. Goncagül Haklar
15:40-16-30	Introduction to innate immune system	Dr. Tunç Akkoç
16:40-17:30	Major histocompatibility complex (MHC) molecules, antigen processing and presentation	Dr. Tunç Akkoç
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Friday	07 September	
08:40-09:30	Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions	Dr. Tunç Akkoç
09:40-10:30	Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions	Dr. Tunç Akkoç
10:40-11:30	Introduction to pharmacology	Dr. Atila Karaalp
11:40-12:30	Routes of drug administration	Dr. Atila Karaalp
13:40-14:30	Molecular mechanisms of necrosis and apoptosis	Dr. Ahmet Arman
14:40-15:30	Signal transduction of inflammation	Dr. Ahmet Arman
15:40-16-30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
16:40-17:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
	2 <sup>nd</sup> Week (Sep 10-Sep 14, 2017)	
Monday	10 September	
08:40-09:30	STUDY TIME	

09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	
11:40-12:30	STUDY TIME	
13:40-14:30	Health effects of tobacco	Dr. Elif Dağlı
14:40-15:30	Health effects of tobacco	Dr. Elif Dağlı
15:40-16-30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
16:40-17:30	Turkish For Medical Students-III (Interactive session for Foreign Students)	Inst. Emine Özerinç
Tuesday	11 September	
08:40-09:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
09:40-10:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
10:40-11:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
11:40-12:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
13:40-14:30	General pharmacokinetic principles-1	Dr. Rezzan Gülhan
14:40-15:30	General pharmacokinetic principles-2	Dr. Rezzan Gülhan
15:40-16-30	General pharmacokinetic principles-3	Dr. Rezzan Gülhan
16:40-17:30	General pharmacokinetic principles-4	Dr. Rezzan Gülhan
Wednesday	12 September	
08:40-09:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
09:40-10:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
10:40-11:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar

11:40-12:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
13:40-14:30	Pathogenesis of parasitic disease	Dr. Nurver Ülger
14:40-15:30	Blood and tissue protozoa	Dr. Nurver Ülger
15:40-16-30	Intestinal and urogenital protozoa	Dr. Nurver Ülger
16:40-17:30	STUDY TIME	
Thursday	13 September	
08:40-09:30	STUDY TIME	
09:40-10:30	Intestinal and tissue nematodes	Dr. Nurver Ülger
10:40-11:30	Intestinal and tissue nematodes	Dr. Nurver Ülger
11:40-12:30	Cestodes and trematodes	Dr. Nurver Ülger
13:40-14:30	Development of T cells, T lymphocyte signaling mechanisms and activation	Dr. Tunç Akkoç
14:40-15:30	Cell injury and cell death	Dr. Handan Kaya
15:40-16-30	Cell injury and cell death	Dr. Handan Kaya
16:40-17:30	STUDY TIME	
Friday	14 September	
08:40-09:30	STUDY TIME	
09:40-10:30	B Lymphocyte: Development and biology	Dr. Tunç Akkoç
10:40-11:30	Cytokines	Dr. Tunç Akkoç
11:40-12:30	Cytokines	Dr. Tunç Akkoç
13:40-14:30	Chronic inflammatory response	Dr. Handan Kaya
14:40-15:30	Transplantation pathology	Dr. Handan Kaya
15:40-16-30	Amyloidosis	Dr. Handan Kaya
16:40-17:30	STUDY TIME	
	3 <sup>rd</sup> Week (Sep 17-Sep 21, 2018)	
Monday	17 September	
08:40-09:30	STUDY TIME	

09:40-10:30		
10:40-11:30	TURKISH PLACEMENT TEST	
11:40-12:30		
13:40-14:30	Autocoids	Dr. Zafer Gören
14:40-15:30	Autocoids	Dr. Zafer Gören
15:40-16-30	Autocoids	Dr. Zafer Gören
16:40-17:30	STUDY TIME	
Tuesday	18 September	
08:40-09:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
09:40-10:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
10:40-11:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
11:40-12:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
13:40-14:30	Mechanism of drug action	Dr. Zafer Gören
14:40-15:30	Mechanism of drug action	Dr. Zafer Gören
15:40-16-30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
16:40-17:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
Wednesday	19 September	
08:40-09:30	Host parasite interactions	Dr. Güner Söyledir
09:40-10:30	Host parasite interactions	Dr. Güner Söyledir
10:40-11:30	DNA viruses: Herpes viruses	Dr. Ufuk Hasdemir
11:40-12:30	Microbial toxins	Dr. Güner Söyledir
13:40-14:30	RNA viruses: Picornaviruses, Rhabdoviruses and Reoviruses	Dr. Ufuk Hasdemir
14:40-15:30	RNA viruses: Retroviruses and HIV	Dr. Ufuk Hasdemir
15:40-16-30	Mechanism of viral pathogenesis	Dr. Güner Söyledir
16:40-17:30	Hepatitis viruses	Dr. Güner Söyledir

Thursday	20 September	
08:40-09:30	STUDY TIME	
09:40-10:30	Basic principles of drug toxicity	Dr. Eren Sakallı
10:40-11:30	Introduction to chemotherapeutics	Dr. Eren Sakallı
11:40-12:30	Introduction to pathology	Dr. Funda Eren
13:40-14:30	Pathology LAB: General principals of macroscopic evaluation (slide lecture)	Dr. Funda Eren, Dr. Hasan Toper
14:40-15:30	Adaptive cell reactions and abnormal accumulations	Dr. İpek Erbarut
15:40-16-30	Acute inflammatory response	Dr. Hasan Toper
16:40-17:30	Acute inflammatory response	Dr. Hasan Toper
Friday	21 September	
08:40-09:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
09:40-10:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
10:40-11:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
11:40-12:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
13:40-14:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
14:40-15:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
15:40-16-30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
16:40-17:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
	4 <sup>th</sup> Week (Sep 24-Sep 28, 2018)	
Monday	24 September	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	

11:40-12:30	STUDY TIME	
13:40-14:30	Molecular and radiobiological behavior	Dr. Hülya Cabadak
14:40-15:30	Effects of ionizing radiation on the cell and organism	Dr. Hülya Cabadak
15:40-16-30	Radiation protection	Dr. Hülya Cabadak
16:40-17:30		
Tuesday	25 September	
08:40-09:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
09:40-10:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
10:40-11:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
11:40-12:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
13:40-14:30	Tissue and organ response to radiation and genetic effects of radiation	Dr. Nahide Gökçora
14:40-15:30	Eicosanoids and related compounds	Dr. Ergül Mutlu Altundağ
15:40-16-30	Eicosanoids and related compounds	Dr. Ergül Mutlu Altundağ
16:40-17:30	STUDY TIME	
Wodnorday	26 Santambar	
Wednesday	26 September	Du Daliu Da Yar
08:40-09:30	Tissue renewal and repair: regeneration, healing and fibrosis	Dr. Pelin Bağcı
09:40-10:30	Pathology LAB: Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı, Dr. Hasan Toper
10:40-11:30	Pathology LAB: Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı, Dr. Hasan Toper
11:40-12:30	Pathology LAB: Cell response to injury and adaptive cell reactions	Dr. Pelin Bağcı, Dr. Hasan Toper
13:40-14:30	Pathology LAB: Changes in the size, consistency, colour, and composition of organs-A	Dr. Pelin Bağcı, Dr. Hasan Toper
14:40-15:30	Pathology LAB: Changes in the size, consistency, colour, and composition of organs-A	Dr. Pelin Bağcı, Dr. Hasan Toper
15:40-16-30	Pathology LAB: Changes in the size, consistency, colour, and	Dr. Pelin Bağcı, Dr. Hasan

16:40-17:30	STUDY TIME	
Thursday	27 September	
08:40-09:30	Pharmacogenetics	Dr. İlter Güney
09:40-10:30	Pharmacogenetics	Dr. İlter Güney
10:40-11:30	Physiology of microcirculation and edema formation	Dr. Hızır Kurtel
11:40-12:30	Physiology of microcirculation and edema formation	Dr. Hızır Kurtel
13:40-14:30	Cellular aging and death	Dr. Pınar Ata
14:40-15:30	Immunogenetics of transplantation	Dr. Pınar Ata
15:40-16-30	Immunogenetics of transplantation	Dr. Pınar Ata
16:40-17:30	Introduction to ICS-2	Dr. Bülent Sezgin
Friday	28 September	
08:40-09:30	STUDY TIME	
09:40-10:30	Antiseptics and disinfectants	Dr. Eren Sakallı
10:40-11:30	Drug-induced immune response and antiallergic treatment	Dr. Eren Sakallı
11:40-12:30	Application of nuclear medicine and radiotherapy	Dr. Nahide Gökçora
13:40-14:30	Hemodynamic disorders	Dr. Çiğdem Ataizi
14:40-15:30	Thromboembolic disease	Dr. Çiğdem Ataizi
15:40-16-30	Thromboembolic disease	Dr. Çiğdem Ataizi
16:40-17:30	STUDY TIME	
	5 <sup>th</sup> Week (Oct 01-Oct 05, 2018)	
Monday	01 October	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	
11:40-12:30	STUDY TIME	
13:40-14:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
14:40-15:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
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15:40-16-30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
	Elective Course-II (Turkish Students) MDCN181 Forensic Sciences MDCN182 Art & Craft For Medicine Students MDCN186 Modern Indian Dance MDCN187 Aerial Fitness And High Intensty Interval Training	Dr. Cemal Gürkan Inst. Nurtane Karagil Inst. Hande Tuğcan Inst. Yasemin Kurtoğlu
16:40-17:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
	Elective Course-II (Turkish Students) MDCN181 Forensic Sciences MDCN182 Art & Craft For Medicine Students MDCN186 Modern Indian Dance MDCN187 Aerial Fitness And High Intensty Interval Training	Dr. Cemal Gürkan Inst. Nurtane Karagil Inst. Hande Tuğcan Inst. Yasemin Kurtoğlu
Tuesday	02 October	
08:40-09:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
09:40-10:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
10:40-11:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
11:40-12:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
13:40-14:30	Body temperature and its regulation	Dr. İnci Alican
14:40-15:30	Body temperature and its regulation	Dr. İnci Alican
15:40-16-30	Microbiology LAB: Normal body flora-I	Dr. Mümtaz Güran
16:40-17:30	Microbiology LAB: Normal body flora-I	Dr. Mümtaz Güran
Wednesday	03 October	
08:40-09:30	STUDY TIME	
09:40-10:30	DNA viruses: Adenoviruses, Parvoviruses, Papavoviruses, and Poxviruses	Dr. Ayşegül Karahasan
10:40-11:30	RNA viruses: Orthomyxoviruses and Paramyxoviruses	Dr. Ayşegül Karahasan
11:40-12:30	RNA viruses: Togaviruses, Bunyaviruses, Flaviviruses and other RNA viruses	Dr. Ayşegül Karahasan
40.40.44.55		
13:40-14:30	Physiology of pain	Dr. Alper Yıldırım
14:40-15:30	Bioterrorism: a global threat	Dr. Ayşegül Karahasan
15:40-16-30	Microbiology LAB: Normal body flora-II	Dr. Mümtaz Güran

16:40-17:30	Microbiology LAB: Normal body flora-II	Dr. Mümtaz Güran
Thursday	04 October	
08:40-09:30	Microbiology of water, milk and air	Dr. Burak Aksu
09:40-10:30	Human microbiota	Dr. Burak Aksu
10:40-11:30	Pharmacotherapy in parasitic infections	Dr. Eren Sakallı
11:40-12:30	Effects of the electromagnetic waves on human health	Dr. Ayşe Garip
13:40-14:30	Bridging innate and adaptive immunity dendritic cells, NK cells, NKT cells and other innate-like T and B lineages	Dr. Tunç Akkoç
14:40-15:30	Structure and function of complement system	Dr. Tunç Akkoç
15:40-16-30	Laboratory diagnosis of viral infections	Dr. Burak Aksu
16:40-17:30	Laboratory diagnosis of viral infections	Dr. Burak Aksu
Friday	05 October	
08:40-09:30	Pharmacotherapy of viral infections	Dr. Eren Sakallı
09:40-10:30	Immune responses to extracellular and intracellular infections	Dr. Tunç Akkoç
10:40-11:30	Immune responses to extracellular and intracellular infections	Dr. Tunç Akkoç
11:40-12:30	Miscellaneous viruses; Coronavirus, Flavivirus, Calicivirus	Dr. Burak Aksu
13:40-14:30	Microbiology LAB: Examination of protozoa	Dr. Mümtaz Güran
14:40-15:30	Microbiology LAB: Examination of protozoa	Dr. Mümtaz Güran
15:40-16-30	<b>Microbiology LAB:</b> Examination of helminths and medically important arthropods	Dr. Burak Aksu
16:40-17:30	Microbiology LAB: Examination of helminths and medically important arthropods	Dr. Burak Aksu
	6 <sup>th</sup> Week (Oct 08-Oct 12, 2018)	
Monday	08 October	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	
11:40-12:30	STUDY TIME	
13:40-14:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç

14:40-15:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
15:40-16-30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
	Elective Course-II (Turkish Students) MDCN181 Forensic Sciences MDCN182 Art & Craft For Medicine Students MDCN186 Modern Indian Dance MDCN187 Aerial Fitness And High Intensty Interval Training	Dr. Cemal Gürkan Inst. Nurtane Karagil Inst. Hande Tuğcan Inst. Yasemin Kurtoğlu
16:40-17:30	Turkish For Medical Students-III (Foreign Students)	Inst. Emine Özerinç
	Elective Course-II (Turkish Students) MDCN181 Forensic Sciences MDCN182 Art & Craft For Medicine Students MDCN186 Modern Indian Dance MDCN187 Aerial Fitness And High Intensty Interval Training	Dr. Cemal Gürkan Inst. Nurtane Karagil Inst. Hande Tuğcan Inst. Yasemin Kurtoğlu
Tuesday	09 October	
08:40-09:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
09:40-10:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
10:40-11:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
11:40-12:30	ICS-2: Student Research Activity	Dr. İlke Akçay, Dr. Özge Cumaoğulları Eker
13:40-14:30	Patient with fever and rash	Dr. Serap Çifçili
14:40-15:30	Basic principles of immunopathology	Dr. Süheyla Bozkurt
15:40-16-30	Pathology of hypersensitivity reactions	Dr. Süheyla Bozkurt
16:40-17:30	Pathology of autoimmune disorders	Dr. Süheyla Bozkurt
Wednesday	10 October	
08:40-09:30	STUDY TIME	
09:40-10:30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Erd Sakallı, Dr. Serap Çiftçili
10:40-11:30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Ere Sakallı, Dr. Serap Çiftçili
11:40-12:30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Ere

13:40-14:30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Eren Sakallı, Dr. Serap Çiftçili
14:40-15:30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Eren Sakallı, Dr. Serap Çiftçili
15:40-16-30	ICS-2: Research Proposal Presentations	Dr. İlke Akçay, Dr, Özge Cumaoğulları Eker, Dr. Eren Sakallı, Dr. Serap Çiftçili
16:40-17:30	STUDY TIME	
Thursday	11 October	
08:40-09:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
09:40-10:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
10:40-11:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
11:40-12:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
13:40-14:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
14:40-15:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
15:40-16-30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar
16:40-17:30	ICS-2: History Taking & Introduction to Physical Examination	Dr. Bülent Sezgin, Dr. Eren Sakallı, Dr. Hasan Toper, Dr. Didem Rıfkı, Dr. Cihan Tüccar

Friday	12 October	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	STUDY TIME	
11:40-12:30	STUDY TIME	
13:40-14:30	STUDY TIME	
14:40-15:30	STUDY TIME	
15:40-16-30	STUDY TIME	
16:40-17:30	STUDY TIME	
	7 <sup>th</sup> Week (Oct 15-Oct 19, 2018)	
Monday	15 October	
08:40-09:30		
09:40-10:30		
10:40-11:30	PRACTICAL EXAM	
11:40-12:30		
13:40-14:30		
14:40-15:30	PRACTICAL EXAM	
15:40-16-30		
16:40-17:30		
Tuesday	16 October	
08:40-09:30		
09:40-10:30	PRACTICAL EXAM	
10:40-11:30	TINCHEAL EXAM	
11:40-12:30		
13:40-14:30		
14:40-15:30	PRACTICAL EXAM	
15:40-16-30	THIS TO THE ENGINE	
16:40-17:30		

Wednesday	17 October
08:40-09:30	STUDY TIME
09:40-10:30	STUDY TIME
10:40-11:30	STUDY TIME
11:40-12:30	STUDY TIME
13:40-14:30	STUDY TIME
14:40-15:30	STUDY TIME
15:40-16-30	STUDY TIME
16:40-17:30	STUDY TIME
Thursday	18 October
08:40-09:30	
09:40-10:30	Y2C1 THEORETICAL EXAM
10:40-11:30	9:30 A.M.
11:40-12:30	
13:40-14:30	
14:40-15:30	
15:40-16-30	
16:40-17:30	