



**INTRODUCTION TO CELL AND CELLULAR REPLICATION**  
**Year 1 Course 1**  
**October 1, 2015 - November 27, 2015**

<b>Coordinator of the Course 1.1</b> Assist. Prof., Ayşe ÜLGEN	<b>Coordinator of the Module 1.1</b> Assist. Prof., Kerem Teralı
<b>Coordinator of Multidisciplinary Students' Lab.</b> Instructor, Kerem Teralı	<b>Coordinator of Clinical Skill Lab.</b> Instructor, Berfu Çerçi ÖNGÜN
<b>Coordinators of Assessment Unite</b> Assist. Prof., Mümtaz GÜRAN ,Assist. Prof., Ayşe ÜLGEN, Assist. Prof., Mevhibe Hocaoğlu, Assist. Prof., Kerem Teralı	<b>Coordinator of ICS Res. Lab.</b> Assist. Prof., Mevhibe Hocaoğlu
<b>Year 1 Coordinators</b> Assoc. Prof., Serap ŞİRVANCI & Assoc. Prof., Mustafa AKKİPRİK	
<b>Module Coordinator</b> Assoc. Prof., Özlem SARIKAYA	<b>Introduction to Clinician Skills(ICS) Coordinators</b> Prof., Sibel KALAÇA, Assoc. Prof., Pemra ÜNALAN
<b>Coordinator of Multidisciplinary Students' Lab.</b> Assoc. Prof., Betül KARADEMİR	<b>Coordinator of Assessment Unite</b> Asist. Prof., Cevdet NACAR
<b>Vice-Chief Coordinators</b>	
<b>Assessment</b> Asist. Prof., Cevdet NACAR	<b>Students' Affairs</b> Asist. 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>	<b>Dean (MU)</b>

**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

**A. 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

**A. 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 healthcare
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 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 and Endocrine Disorders  
Year 3, Course 5: Urinary and Reproductive System and Related Disorders

## INTRODUCTION TO CELL AND CELLULAR REPLICATION COURSE

### AIM and LEARNING OBJECTIVES of COURSE

**Aim:** At the end of this committee, first year students will gain knowledge about structure, function and mechanisms in human biology at the molecular and cellular levels with a specific emphasis on cellular replication and genetics.

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

1. Identify and describe the development, structure and function of cell and its subcomponents
2. Evaluate the biochemical process of the cell
3. Understand cell division process and related mechanisms
4. Describe the genetics mechanisms and protein biosynthesis
5. Understand genetic variation in individuals
6. Describe the molecular mechanisms of genetic inheritance and genetic basis of inherited disease
7. Acquire skills necessary to perform experimental applications

#### ASSESSMENT SYSTEM

**Module examination:** Written exam at the end of course + Performance points(10 % of final score)

**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-1 & MODULE-1

- Biochemistry
- Biophysics
- Biostatistics
- Chemistry
- Pediatrics

- Histology and Embryology
- Medical Biology
- Medical Genetics
- Medical English
- Medical History and Ethics

#### LECTURERS / TUTORS

Yeşim DEDE, Instructor, Turkish  
Ayşe KOZANSOY, Instructor, Medical English  
Ayfer Şen, Instructor, Medical English  
Ayşe ÜLGEN, Assist. Prof., Biostatistics  
Betül KARADEMİR, Assist. Prof., Biochemistry  
Berfu Çerçi ÖNGÜN, Instructor, Anatomy  
Feriha ERCAN, Prof., Histology& Emb.  
Huriye İCİL, Prof., Biochemistry  
Hasan CİCİOĞLU, Assoc. Prof., Atatürk's Principles and History of Modern Turkey  
İlter GÜNEY, Assist. Professor of Medical Genetics  
Mustafa AKKİPRİK, Assoc. Prof., Medical Biology

Mümtaz GÜRAN, Assist. Prof., Microbiology  
Naife SEVDALI, Instructor, Clinical Psychology  
Özlem SARIKAYA, Assoc. Prof., Public Health  
Pemra ÜNALAN, Assoc. Prof., Family Medicine  
Pınar MEGA TİBER, Assist. Prof., Biophysics  
Saime BATIREL, Assist. Prof., Biochemistry  
Sinem YILDIZ, Assist. Prof., Medical Education  
Şefik GÖRKEY, Prof., Medical History and Ethics  
Şükrü TÜZMEN, Assoc. Prof., Medical Biology  
Önder ŞİRİKÇİ, Prof., Medical Biochemistry  
Goncagül HAKLAR, Professor of Biochemistry

#### READING / STUDYING MATERIALS

- Biochemistry, Zubay, 3rd Ed., WCBMethod
- Biochemistry, Stryer, 4<sup>th</sup> Ed, Freeman
- Basic Histology, Junqueira, Corneiro, 8<sup>th</sup> Ed., Lange
- Biostatistics: Basic Concepts and Methodology for the Health Sciences, 10<sup>th</sup> Ed. Wayne W. Daniel, Chad L. Cross
- Color Textbook of Histology, Gatrner, Hiatt, WB Saunders
- Harper's Biochemistry, Murray, Granner, 23rd Ed., Lange
- Histology: A Text and Atlas, Ross, Romwell, 3rd, Lippincott
- History of Medicine Ders Notları, Şefik Görkey
- Leninger Principles of Biochemistry, Nelson, Cox, 3rd, Worth
- Medicine: An Illustrated History, Albert S. Lyons, R. Joseph Petrucelli,
- Molecular Biology of the Cell, Alberts, Bray, 3rd Ed., Garland
- Physics, Giancoli, 4th Ed., Prentice Hall
- The Cell: A Molecular Approach, Cooper, 2nd Ed., ASM Press
- Türk Tıp Tarihi, Bedi Şeyhsuvaroğlu, Gönül Cantay
- Başlangıcından Rönesansa Kadar Tıp Tarihi, Emine Atabek, Şefik Görkey

<b>SUMMARY OF THE COURSE 1.1</b>			
<b>Discipline</b>	<b>Lecture &amp; Group Discussion</b>	<b>Multidisciplinary Lab. &amp; Clinical Skills Lab. Practice</b>	<b>Total</b>
Medical Biology	33		33
Medical Genetics	1		1
Biochemistry	30	8	38
Chemistry	26		26
Histology and Embryology	7	4	11
Biostatistics	6		6
Biophysics	4		4
Medical History and Ethics	12		12
Pediatrics	2		2
<b>Subtotal</b>	<b>121</b>	<b>12</b>	<b>133</b>
<b>PBL Module</b>	8		8
<b>Introduction to Clinician Skills (ICS)-1 Computer Skills in Medicine and Student Research Activities</b>	5		5
<b>Medical English</b>	28		28
<b>Atatürk's Principles and History of Modern Turkey</b>	14		14
<b>Communication in Turkish-I</b>	26		26
<b>Electives</b>	15		15
<b>TOTAL</b>	<b>217</b>	<b>12</b>	<b>229</b>

NINE WEEK PROGRAM		
	Theoretical and Practical Sessions	Lecturer(s) / Tutor(s)
<b>1. WEEK (28 September - 2 October, 2015)</b>		
<b>Monday, 28 September, 2015</b>		
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	
<b>Tuesday, 29 September, 2015</b>		
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	
<b>Wednesday, 30 September, 2015</b>		
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	
<b>Thursday, 1 October, 2015</b>		
08:40-09:30	STUDY TIME	
09:40-10:30	Opening Ceremony	Dr. Nahide Gökçora
10:40-11:30	Medical Education in Dr Fazıl Küçük Faculty of Medicine	Dr. Dila Şener
11:40-12:30	Opening Lecture	Dr. Serap Çiftçili
13:40-14:30	Introduction to organic chemistry	Dr. Huriye İcil
14:40-15:30	Atoms and atomic theory, atomic properties and periodic table	Dr. Huriye İcil
15:40-16:30	Chemical bonds and chemical compounds	Dr. Huriye İcil
16:40-17:30	STUDY TIME	
<b>Friday, 2 October, 2015</b>		
08:40-09:30		
09:40-10:30	Chemical bonds and chemical compounds	Dr. Huriye İcil
10:40-11:30	Molarity, Normality, Solution preparation	Dr. Huriye İcil
11:40-12:30	Molarity, Normality, Solution preparation	Dr. Huriye İcil

13:40-14:30	STUDY TIME	
14:40-15:30	STUDY TIME	
15:40-16:30	STUDY TIME	
16:40-17:30	STUDY TIME	
<b>2. WEEK (5 -9 October, 2015)</b>		
<b>Monday,</b>	<b>5 October, 2015</b>	
08:40-09:30	The origin of life	Dr. Şükrü Tüzmen
09:40-10:30	Cellular organisation of life	Dr. Şükrü Tüzmen
10:40-11:30	Introduction to Biochemistry	Dr. Betül Karademir, Dr. Saime Batirel
11:40-12:30	Evolution of biological molecules	Dr. Betül Karademir, Dr. Saime Batirel
13:40-14:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
14:40-15:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
15:40-16:30	Major functional groups and bonds in biomolecules	Dr. Betül Karademir, Dr. Saime Batirel
16:40-17:30	Major functional groups and bonds in biomolecules	Dr. Betül Karademir, Dr. Saime Batirel
<b>Tuesday,</b>	<b>6 October, 2015</b>	
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	ICS-1 General Introduction to ICS	Dr. Mehmet Akman
11:40-12:30	STUDY TIME	
13:40-14:30	STUDY TIME	
14:40-15:30	<b>Elective course</b>	
15:40-16:30	<b>Elective course</b>	
16:40-17:30	<b>Elective course</b>	
<b>Wednesday,</b>	<b>7 October, 2015</b>	
08:40-09:30	Transcription	Şükrü Tüzmen
09:40-10:30	Transcription	Şükrü Tüzmen
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
14:40-15:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
15:40-16:30	Communication in Turkish-I	Emine Özerinç
16:40-17:30	Communication in Turkish-I	Emine Özerinç
<b>Thursday,</b>	<b>8 October, 2015</b>	
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	Microscope	Dr. Feriha Ercan

<b>11:40-12:30</b>	Microscope	Dr. Feriha Ercan
<b>13:40-14:30</b>	Histotechniques	Dr. Feriha Ercan
<b>14:40-15:30</b>	Cellular organelles and inclusions at LM and EM level	Dr. Feriha Ercan
<b>15:40-16:30</b>	Cellular organelles and inclusions at LM and EM level	Dr. Feriha Ercan
<b>16:40-17:30</b>	STUDY TIME	
<b>Friday,</b>	<b>9 October, 2015</b>	
<b>08:40-09:30</b>	Translation/Protein synthesis	Dr. Şükrü Tüzmen
<b>09:40-10:30</b>	Translation/Protein synthesis	Dr. Şükrü Tüzmen
<b>10:40-11:30</b>	Regulation of gene expression	Dr. Şükrü Tüzmen
<b>11:40-12:30</b>	Biomolecules and water	Dr. Önder Şirikçi
<b>13:40-14:30</b>	Biomolecules and water	Dr. Önder Şirikçi
<b>14:40-15:30</b>	Solubility, pH and buffers	Dr. Önder Şirikçi
<b>15:40-16:30</b>	Solubility, pH and buffers	Dr. Önder Şirikçi
<b>16:40-17:30</b>	STUDY TIME	
<b>3. WEEK (12-16 October, 2015)</b>		
<b>Monday,</b>	<b>12 October, 2015</b>	
<b>08:40-09:30</b>	Cellular membranes	Dr. Şükrü Tüzmen
<b>09:40-10:30</b>	Cellular membranes	Dr. Şükrü Tüzmen
<b>10:40-11:30</b>	Biostatistics: Research Design	Dr. Ayşe Ülgen
<b>11:40-12:30</b>	Biostatistics: Design of Experiment	Dr. Ayşe Ülgen
<b>13:40-14:30</b>	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
<b>14:40-15:30</b>	Medical English (Group I)	Dr. Ayşe Kozansoy Ayfer Şen
<b>15:40-16:30</b>	Structure of lipids	Dr. Goncagül Haklar
<b>16:40-17:30</b>	Structure of lipids	Dr. Goncagül Haklar
<b>Tuesday,</b>	<b>13 October, 2015</b>	
<b>08:40-09:30</b>	Communication in Turkish-I	Yeşim Dede
<b>09:40-10:30</b>	Communication in Turkish-I	Yeşim Dede
<b>10:40-11:30</b>	<b>PBL Orientation</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>11:40-12:30</b>	<b>PBL Orientation</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>13:40-14:30</b>	<b>PBL Orientation</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>14:40-15:30</b>	<b>Elective course</b>	
<b>15:40-16:30</b>	<b>Elective course</b>	
<b>16:40-17:30</b>	<b>Elective course</b>	
<b>Wednesday,</b>	<b>14 October, 2015</b>	

<b>08:40-09:30</b>	Cellular organelles	Dr. Şükrü Tüzmen
<b>09:40-10:30</b>	Cellular organelles	Dr. Şükrü Tüzmen
<b>10:40-11:30</b>	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
<b>11:40-12:30</b>	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
<b>13:40-14:30</b>	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
<b>14:40-15:30</b>	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
		Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>15:40-16:30</b>	<b>PBL Module 1</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>16:40-17:30</b>	<b>PBL Module 1</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>Thursday, 15 October, 2015</b>		
<b>08:40-09:30</b>	STUDY TIME FOR PBL	
<b>09:40-10:30</b>	Cellular effects of tobacco use	Dr. Berfu Çerçi Öngün
<b>10:40-11:30</b>	Cellular effects of tobacco use	Dr. Berfu Çerçi Öngün
<b>11:40-12:30</b>	Amino acids	Dr. Önder Şirikçi
<b>13:40-14:30</b>	Amino acids	Dr. Önder Şirikçi
<b>14:40-15:30</b>	Structure of carbohydrates	Dr. Önder Şirikçi
<b>15:40-16:30</b>	Structure of carbohydrates	Dr. Önder Şirikçi
<b>16:40-17:30</b>	Biostat: Nature of Data	Dr. Ayşe Ülgen
<b>Friday, 16 October, 2015</b>		
<b>08:40-09:30</b>	STUDY TIME	
<b>09:40-10:30</b>	STUDY TIME	
<b>10:40-11:30</b>	Communication in Turkish-I	Yeşim Dede
<b>11:40-12:30</b>	Communication in Turkish-I	Yeşim Dede
<b>13:40-14:30</b>	<b>PBL Module 2</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>14:40-15:30</b>	<b>PBL Module 2</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>15:40-16:30</b>	STUDY TIME	
<b>16:40-17:30</b>	STUDY TIME	
<b>4. WEEK (19-23 October, 2015)</b>		
<b>Monday, 19 October, 2015</b>		
<b>08:40-09:30</b>	Population genetics	Dr. Şükrü Tüzmen
<b>09:40-10:30</b>	Flow of genetic information: Central dogma	Dr. Şükrü Tüzmen



10:40-11:30	Flow of genetic information: Central dogma	Dr. Şükrü Tüzmen
11:40-12:30	Protein structure and function	Dr. Betül Karademir, Dr. Saime Batirel
13:40-14:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
14:40-15:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
15:40-16:30	Protein structure and function	Dr. Betül Karademir, Dr. Saime Batirel
16:40-17:30	Protein structure and function	Dr. Betül Karademir, Dr. Saime Batirel
<b>Tuesday, 20 October, 2015</b>		
08:40-09:30	Protein structure and function	Dr. Betül Karademir
09:40-10:30	<b>LAB: Spectrophotometry</b>	Dr. Betül Karademir, Dr. Saime Batirel
10:40-11:30	<b>LAB: Spectrophotometry</b>	Dr. Betül Karademir, Dr. Saime Batirel
11:40-12:30	<b>LAB: Spectrophotometry</b>	Dr. Betül Karademir, Dr. Saime Batirel
13:40-14:30	<b>LAB: Spectrophotometry</b>	Dr. Betül Karademir, Dr. Saime Batirel
14:40-15:30	<b>Elective course</b>	
15:40-16:30	<b>Elective course</b>	
16:40-17:30	<b>Elective course</b>	
<b>Wednesday, 21 October, 2015</b>		
08:40-09:30	DNA Structure and Function	Dr. Şükrü Tüzmen
09:40-10:30	DNA Structure and Function	Dr. Şükrü Tüzmen
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
14:40-15:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
15:40-16:30	<b>PBL Module 3</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
16:40-17:30	<b>PBL Module 3</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>Thursday, 22 October, 2015</b>		
08:40-09:30	STUDY TIME FOR PBL	
09:40-10:30	Describing Data with the Numbers: Measure of central Tendency	Dr. Ayşe Ülgen
10:40-11:30	Describing Data with the Numbers: Measure of Dispersion	Dr. Ayşe Ülgen
11:40-12:30	Carboxylic Acids and Their Derivatives	Dr. Huriye İcıl

<b>13:40-14:30</b>	Amines, Thiols, and their reactivity	Dr. Huriye İcil
<b>14:40-15:30</b>	Solubility and complex ion equilibrium	Dr. Huriye İcil
<b>15:40-16:30</b>	Solubility and complex ion equilibrium	Dr. Huriye İcil
<b>16:40-17:30</b>	STUDY TIME FOR PBL	
<b>Friday, 23 October, 2015</b>		
<b>08:40-09:30</b>	Biostat: Describing data: Looking at data	Dr. Ayşe Ülgen
<b>09:40-10:30</b>	Aromaticity and Benzene	Dr. Huriye İcil
<b>10:40-11:30</b>	Thermochemistry (chemical energetics)	Dr. Huriye İcil
<b>11:40-12:30</b>	Thermochemistry (chemical energetics)	Dr. Huriye İcil
<b>13:40-14:30</b>	Electrochemistry: Oxidation and reduction	Dr. Huriye İcil
<b>14:40-15:30</b>	Electrochemistry: Oxidation and reduction	Dr. Huriye İcil
<b>15:40-16:30</b>	<b>PBL Module 4</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>16:40-17:30</b>	<b>PBL Module 4</b>	Dr. Mümtaz Güran, Dr. Ayşe Ülgen, Naife Sevdalı, Dr Kerem Teralı
<b>5. WEEK (23-30 October, 2015)</b>		
<b>Monday, 26 October, 2015</b>		
<b>08:40-09:30</b>	Packing of chromosomal DNA	Dr. Şükrü Tüzmen
<b>09:40-10:30</b>	Recombination	Dr. Şükrü Tüzmen
<b>10:40-11:30</b>	DNA replication	Dr. Şükrü Tüzmen
<b>11:40-12:30</b>	Vitamines and coenzymes	Dr. Betül Karademir, Dr. Saime Batirel
<b>13:40-14:30</b>	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
<b>14:40-15:30</b>	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
<b>15:40-16:30</b>	Vitamines and coenzymes	Dr. Betül Karademir, Dr. Saime Batirel
<b>16:40-17:30</b>	Enzyme regulation	Dr. Betül Karademir, Dr. Saime Batirel
<b>Tuesday, 27 October, 2015</b>		
<b>08:40-09:30</b>	Enzyme regulation	Dr. Betül Karademir, Dr. Saime Batirel
<b>09:40-10:30</b>	Membrane structure and function	Dr. Betül Karademir, Dr. Saime Batirel
<b>10:40-11:30</b>	Membrane structure and function	Dr. Betül Karademir, Dr. Saime Batirel
<b>11:40-12:30</b>	Posttranslational modification of proteins	Dr. Betül Karademir, Dr. Saime Batirel
<b>13:40-14:30</b>	Posttranslational modification of proteins	Dr. Betül Karademir, Dr. Saime Batirel

14:40-15:30	Elective course	
15:40-16:30	Elective course	
16:40-17:30	Elective course	
<b>Wednesday, 28 October, 2015</b>		
08:40-09:30	STUDY TIME	
09:40-10:30	STUDY TIME	
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	<b>HOLIDAY</b>	
14:40-15:30		
15:40-16:30		
16:40-17:30		
<b>Thursday, 29 October, 2015</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, 30 October, 2015</b>		
08:40-09:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
09:40-10:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
10:40-11:30	Protein targeting and turnover	Dr. Betül Karademir
11:40-12:30	Protein targeting and turnover	Dr. Betül Karademir
13:40-14:30	Structure of nucleotides and nucleic acids	Dr. Betül Karademir
14:40-15:30	Structure of nucleotides and nucleic acids	Dr. Betül Karademir
15:40-16:30	Enzymes and enzyme kinetics	Dr. Betül Karademir
16:40-17:30	Enzymes and enzyme kinetics	Dr. Betül Karademir
<b>6. WEEK (2 -6 November, 2015)</b>		
<b>Monday, 2 November, 2015</b>		
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	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
14:40-15:30	Medical English (Group I)	Dr. Ayşe Kozansoy Ayfer Şen

15:40-16:30	Chemical kinetics and reaction mechanisms	Dr. Huriye İcil
16:40-17:30	Stereochemistry	Dr. Huriye İcil
<b>Tuesday, 3 November, 2015</b>		
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	Acids and Bases (Strong/weak acids and bases)	Dr. Huriye İcil
11:40-12:30	Communication in Turkish-I	Yeşim Dede
13:40-14:30	Communication in Turkish-I	Yeşim Dede
14:40-15:30	<b>Elective course</b>	
15:40-16:30	<b>Elective course</b>	
16:40-17:30	<b>Elective course</b>	
<b>Wednesday 4 November, 2015</b>		
08:40-09:30	Mutagenesis and DNA repair	Dr. Şükrü Tüzmen
09:40-10:30	Mutagenesis and DNA repair	Dr. Şükrü Tüzmen
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
14:40-15:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
15:40-16:30	Communication in Turkish-I	Yeşim Dede
16:40-17:30	Communication in Turkish-I	Yeşim Dede
<b>Thursday 5 November, 2015</b>		
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	STUDY TIME	
11:40-12:30	STUDY TIME	
13:40-14:30	ICS-1 General Introduction to ICS	Dr. Özlem Sarıkaya, Dr. Ayşe Ülgen
14:40-15:30	ICS-1 Introduction to ICS-research	Dr. Özlem Sarıkaya, Dr. Ayşe Ülgen
15:40-16:30	ICS-1 Scientific approach, literature review, scientific materials	Dr. Özlem Sarıkaya, Dr. Ayşe Ülgen
16:40-17:30	ICS-1 Global look to different research designs	Dr. Özlem Sarıkaya, Dr. Ayşe Ülgen
<b>Friday, 6 November, 2015</b>		
08:40-09:30	<b>LAB: UREASE - GROUP A</b>	Dr. Betül Karademir, Dr. Saime Batirel
09:40-10:30	<b>LAB: UREASE - GROUP A</b>	Dr. Betül Karademir, Dr. Saime Batirel
10:40-11:30	<b>LAB: UREASE - GROUP A</b>	Dr. Betül Karademir, Dr. Saime Batirel
11:40-12:30	<b>LAB: UREASE - GROUP A</b>	Dr. Betül Karademir, Dr. Saime Batirel

13:40-14:30	LAB: UREASE - GROUP B	Dr. Betül Karademir, Dr. Saime Batirel
14:40-15:30	LAB: UREASE - GROUP B	Dr. Betül Karademir, Dr. Saime Batirel
15:40-16:30	LAB: UREASE - GROUP B	Dr. Betül Karademir, Dr. Saime Batirel
16:40-17:30	LAB: UREASE - GROUP B	Dr. Betül Karademir, Dr. Saime Batirel
<b>7. WEEK (9-13 November, 2015)</b>		
<b>Monday 9 November, 2015</b>		
08:40-09:30	Human genome	Dr. Şükrü Tüzmen
09:40-10:30	Human genome	Dr. Şükrü Tüzmen
10:40-11:30	Determination of nucleic acids	Dr. Şükrü Tüzmen
11:40-12:30	Acids and Bases (Strong/weak acids and bases)	Dr. Huriye İcil
13:40-14:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
14:40-15:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
15:40-16:30	Communication in Turkish-I	Yeşim Dede
16:40-17:30	Communication in Turkish-I	Yeşim Dede
<b>Tuesday 10 November, 2015</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 11 November, 2015</b>		
08:40-09:30	Chromosome structure, function and anomalies	Dr. Şükrü Tüzmen
09:40-10:30	Chromosome structure, function and anomalies	Dr. Şükrü Tüzmen
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
14:40-15:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
15:40-16:30	Communication in Turkish-I	Yeşim Dede
16:40-17:30	Communication in Turkish-I	Yeşim Dede
<b>Thursday 12 November, 2015</b>		
08:40-09:30	<b>Histology LAB: Cell Types - Group A</b>	Dr. Feriha Ercan
09:40-10:30	<b>Histology LAB: Cell Types - Group A</b>	Dr. Feriha Ercan
10:40-11:30	Nucleus and cell division	Dr. Feriha Ercan
11:40-12:30	Nucleus and cell division	Dr. Feriha Ercan

13:40-14:30	Histology LAB: Cell Types - Group B	Dr. Feriha Ercan
14:40-15:30	Histology LAB: Cell Types - Group B	Dr. Feriha Ercan
15:40-16:30	Chemical reactions and equilibrium	Dr. Huriye İcil
16:40-17:30	Chemical kinetics and reaction mechanisms	Dr. Huriye İcil
<b>Friday</b>	<b>13 November, 2015</b>	
08:40-09:30	Histology LAB: Cell division - Group A	Dr. Feriha Ercan
09:40-10:30	Histology LAB: Cell division - Group A	Dr. Feriha Ercan
10:40-11:30	Histology LAB: Cell division - Group B	Dr. Feriha Ercan
11:40-12:30	Histology LAB: Cell division - Group B	Dr. Feriha Ercan
13:40-14:30	Introduction to Biophysics - I	Dr. Pınar Mega Tiber
14:40-15:30	Introduction to Biophysics - I	Dr. Pınar Mega Tiber
15:40-16:30	Introduction to Biophysics - II	Dr. Pınar Mega Tiber
16:40-17:30	Introduction to Biophysics - II	Dr. Pınar Mega Tiber
<b>8. WEEK (16 -20 November, 2015)</b>		
<b>Monday</b>	<b>16 November, 2015</b>	
08:40-09:30	Mitosis and meiosis	Dr. Şükrü Tüzmen
09:40-10:30	Mitosis and meiosis	Dr. Şükrü Tüzmen
10:40-11:30	Cell cycle and regulation	Dr. Şükrü Tüzmen
11:40-12:30	Alkanes, Alkenes, Alkynes and Alkyl Halides	Dr. Huriye İcil
13:40-14:30	Medical English (Group I)	Dr. Ayşe Kozansoy, Ayfer Şen
14:40-15:30	Medical English (Group I)	Dr. Ayşe Kozansoy Ayfer Şen
15:40-16:30	Cell death and molecular mechanisms	Dr. Mustafa Akkiprik
16:40-17:30	Molecular basis of disease	Dr. Mustafa Akkiprik
<b>Tuesday</b>	<b>17 November, 2015</b>	
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	Alkanes, Alkenes, Alkynes and Alkyl Halides	Dr. Huriye İcil
11:40-12:30	Aldehydes, Ketones and their reactivity	Dr. Huriye İcil
13:40-14:30	Cytogenetics	Dr. İlder Güney
14:40-15:30	<b>Elective course</b>	
15:40-16:30	<b>Elective course</b>	
16:40-17:30	<b>Elective course</b>	
<b>Wednesday</b>	<b>18 November, 2015</b>	
08:40-09:30	Cell cycle and regulation	Dr. Şükrü Tüzmen
09:40-10:30	Viruses, plasmids, transposable genetic elements	Dr. Şükrü Tüzmen
10:40-11:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
11:40-12:30	Atatürk's Principles and History of Modern Turkey	Dr. Hasan Cicioğlu
13:40-14:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy
14:40-15:30	Medical English (Group II)	Ayfer Şen, Dr Ayşe Kozansoy

15:40-16:30	Turning points in History of Medicine	Dr. Şefik Görkey
16:40-17:30	Turning points in History Medicine	Dr. Şefik Görkey
<b>Thursday 19 November, 2015</b>		
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	History of Anatomy	Dr. Şefik Görkey
11:40-12:30	History of Anatomy	Dr. Şefik Görkey
13:40-14:30	Evolution of the concept of infection	Dr. Şefik Görkey
14:40-15:30	History of surgery	Dr. Şefik Görkey
15:40-16:30	History of physiology	Dr. Şefik Görkey
16:40-17:30	Aldehydes, Ketones and their reactivity	Dr. Huriye İcil
<b>Friday 20 November, 2015</b>		
08:40-09:30	Communication in Turkish-I	Yeşim Dede
09:40-10:30	Communication in Turkish-I	Yeşim Dede
10:40-11:30	History of human experimentation	Dr. Şefik Görkey
11:40-12:30	History of human experimentation	Dr. Şefik Görkey
13:40-14:30	History of medical professionalism	Dr. Şefik Görkey
14:40-15:30	History of Medicine in Seljukid and Ottoman Ages	Dr. Şefik Görkey
15:40-16:30	History of Medicine in Turkish Republic	Dr. Şefik Görkey
16:40-17:30	Alcohols, Phenols and Ethers	Dr. Huriye İcil
<b>9. WEEK (23-27 November)</b>		
<b>Monday 23 November, 2015</b>		
08:40-09:30		
09:40-10:30	<b>PRACTICAL EXAM</b>	
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 24 November, 2015</b>		
08:40-09:30		
09:40-10:30	<b>PRACTICAL EXAM</b>	
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 25 November, 2015</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>Thursday</b>	<b>26 November, 2015</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>Friday</b>	<b>27 November, 2015</b>	
08:40-09:30		
09:40-10:30	<b>THEORETICAL EXAM</b>	
10:40-11:30		
11:40-12:30		
13:40-14:30		
14:40-15:30		
15:40-16:30		
16:40-17:30		