GAZİ UNIVERSITY MEDICAL FACULTY

PHASE I – MOLECULE TO CELL COMMITTEE

(27 OCTOBER 2025 – 5 DECEMBER 2025)

COURSES	THEORETICAL	LABORATORY	PRACTICAL	TOTAL
Medical Biology	34	8x2	-	36
Medical Biochemistry	23	8x3	-	26
Biophysics	7	-	-	7
Public Health	12	-	4x2	14
Medical History and Ethics	17	-	-	17
Panel	1	-	-	1
TOTAL	**94**	**5**	**2**	**101**
ELECTIVE COURSE	12	-	-	12
CRITICAL THINKING AND ART	8		8	16
TOTAL	**114**	**5**	**10**	**129**
FREE STUDY TIME	**53**			

Total 29 workdays.

Free study time: Individual studying courses intended for learning in accordance with the present committee.

ELECTIVE COURSES

Turkish Language	
Atatürk's Principles and History of His Revolutions	
English	

English (face-to-face): Every week on Monday between 13.30 – 15.20
Turkish Language: Every week on Wednesday between 16.30 – 17.20
Ataturk's Principles and History of His Revolutions: Every week on Thursday between 18.00 – 18.50

Dean	Prof. Alper CEYLAN
Vice Dean	Prof. Asiye UĞRAŞ DİKMEN
Vice Dean	Assoc. Prof. Nazmi Mutlu KARAKAŞ
Head Coordinator	Prof. Çiğdem ÖZER
Assistant Head Coordinator	Prof. Mehmet Ali ERGÜN
Assistant Head Coordinator	Prof. Akif Muhtar ÖZTÜRK
Phase I Coordinator	Assoc. Prof. Volkan MEDENİ
Assistant Phase I Coordinator	Asst. Prof. Duygu Deniz USTA SALİMİ
Assistant Phase I Coordinator	Asst. Prof. Niyazi Samet YILMAZ
Assistant Phase I Coordinator	Lect. Burak KAYABAŞI
Assistant Phase I Coordinator	Lect. Sidre ERGANİŞ
Assistant Phase I Coordinator	Lect. Aynur ÇOBAN

MEMBERS OF COMMITTEE

MEDICAL BIOLOGY	MEDICAL BIOCHEMISTRY	PUBLIC HEALTH
Dr. Ece KONAÇ	Dr. Mustafa KAVUTÇU	Dr. F. Nur AKSAKAL
Dr. Atiye Seda YAR SAĞLAM	Dr. Aylin SEPİCİ DİNÇEL	Dr. Hakan TÜZÜN
Dr. H. İlke ÖNEN	Dr. Cengiz KARAKAYA	Dr. Cansu ÖZBAŞ
Dr. Nuray VAROL		
Dr. Pelin TELKOPARAN AKILLILAR	Dr. Niyazi Samet YILMAZ	
Dr. Duygu Deniz USTA SALİMİ	Dr. Kübra ÜNAL	
Dr. Kübra Gizem ESENTURK YAYLA		
BIOPHYSICS	**MEDICAL HISTORY AND ETHICS**	**CRITICAL THINKING AND ART**
Dr. Arın TOMRUK	Dr. Namık ÇENÇEN	Dr. Meltem YALINAY
		Dr. Serdar KULA
		Dr. Hayrunnisa BONAY BELEN

COMMUNICATION SKILLS COORDINATOR	Prof. Dr. Meltem YALINAY
ELECTIVE COURSE COORDINATOR	Assoc. Prof. Ergin DİLEKÖZ

FROM MOLECULE TO CELL COMMITTEE

LEARNING OBJECTIVES AND GOALS

Information

1. To be able to classify and explain the structural and biochemical properties of carbohydrates, lipids and vitamins, evaluate their functional properties and clinical importance
2. To be able to define PH concept and buffer systems in the body
3. Be able to explain the general properties of RNA and protein synthesis in prokaryotic and eukaryotes, the molecules involved and the mechanisms by which they are controlled
4. To explain the properties of the genetic code, to define the molecules and their properties in gene expression control, to differentiate in cells, to gain function, to explain the molecules and controls that control aging and death events
5. To be able to explain the molecular effects and properties of genes involved in early embryo development
6. Explain the causes of DNA mutation and the properties of molecules involved in DNA repair mechanisms
7. Molecular formation and development steps of cancer and the classification of the gene groups involved in this process and the ability to count the properties
8. To be able to explain the application areas of recombinant DNA technology and biotechnology in medicine
9. Explaining the definition of epidemiology and its usage areas, counting the types and types of research planning, explaining biostatistics concepts
10. To be able to count the importance tests and to be able to say the properties and usage conditions of parametric and non-parametric materiality tests
11. To be able to say electromagnetic (EM) field concept and its sources
12. To be able to explain the permeability of tissues to electric and magnetic fields
13. To be able to explain the biological effects of low frequency (ELF) E and B areas with examples
14. To be able to list the main sources and biological effects of radio wave (RF) / microwave (MW) radiation
15. To explain mobile phone frequencies and SAR concept, To evaluate the effect of mobile phone on medical devices
16. Evaluate national and international standards for protection against EM radiation and apply practical suggestions to protect it in daily life
17. To be able to define the difference between general public exposure and occupational exposure standards
18. Revolutionary changes in the history of medicine leading to the development of the profession of physicians, physicians who leave a trace, in the light of the fundamental events that create a transformation, to explain the evolution of medicine with an evolutionary approach, to explain the concept of ethics

Skills:

1. To be able to choose the materiality test that can be used according to the characteristics of the data and to evaluate the suitability of the frequently used statistical tests in scientific publications
2. DNA isolation and conduction of DNA in agarose gel
3. To be able to perform quantitative test result with spectrophotometer

Week 1	27.10.2025	28.10.2025	29.10.2025	30.10.2025	31.10.2025
08:30 – 09:20	Electromagnetic (EM) Pollution: Electromagnetic Spectrum, natural and man made sources of EM Pollution **Dr. A. Tomruk**	General structure of chromosomes and classification of human chromosomes **Dr. D. D. Usta Salimi**	29 EKİM CUMHU-RİYET BAYRA-MI	Free Study Time	**Biochemistry Lab.** Analysis of reducing properties of carbohydrates Group A
09:30 – 10:20		Exam assessment and coordinator's office meeting		Free Study Time	
10:30 – 11:20	Classfication of Carbonhydrate and monosaccarides **Dr. M. Kavutçu**	Free Study Time		Sınav değerlendirme ve koordinatörlük toplantısı	**Biochemistry Lab.** Analysis of reducing properties of carbohydrates Group B
11:30 – 12:20	Disaccarides **Dr. M. Kavutçu**	Polysaccarides and other carbonhydrates **Dr. M. Kavutçu**		BEYAZ ÖNLÜK organizasyon bilgilendirmesi	
13:30 – 14:20	ENGLISH			BEYAZ ÖNLÜK TÖRENİ	Epidemiology and its application topics **Dr. C. Özbaş**
14:30 – 15:20					Planning an epidemiological research **Dr. C. Özbaş**
15:30 – 16:20	ELECTIVE COURSES				Study population, sample and sampling methods **Dr. C. Özbaş**
16:30 – 17:20					Free Study Time
				18:00 - 18:50- Ataturk's Principles and History of His Revolutions	

Week 2	03.11.2025	04.11.2025	05.11.2025	06.11.2025	07.11.2025
08:30 – 09:20	Eleştirel ve Yaratıcı Düşünme Süreçleri **Dr. M. Yalınay**	General structure of chromosomes and classification of human chromosomes **Dr. D. D. Usta Salimi**	**Biostatistic Practice1:** Planning a research, data collection and entry	Sosyal Medya ve Eleştirel Düşünme – **Dr. S. Kula**	Free Study Time
09:30 – 10:20		Medical Ethics **Dr.N. Çençen**			Free Study Time
10:30 – 11:20	The emergence of the first cell **Dr. P. Telkoparan Akıllılar**	Physician's identity, Deontology and concepts of medical ethics **Dr.N. Çençen**		The evolution of genes and genomes **Dr. P. Telkoparan Akıllılar**	Fundamental Concepts of Genetics **Dr. E. Konaç**
11:30 – 12:20	Endosymbiosis and eukaryotic cell development **Dr. P. Telkoparan Akıllılar**			Control Mechanisms of Gene Expression **Dr. H. İ. Önen**	
13:30 – 14:20	**English**	Presentation of data, preparation of tables and graphics **Dr.H. Tüzün**		Control Mechanisms of Gene Expression **Dr. H. İ. Önen**	Medical Ethics **Dr.N. Çençen**
14:30 – 15:20	**English**	Data collection, Questionnaire preparing **Dr.H. Tüzün**	**Critical Thinking** Small Group Studies - 1		
15:30 – 16:20	**ELECTIVE COURSES**	Glycoproteins and derivatives **Dr. N. S. Yılmaz**		Sinema Eleştrisi **Dr. M. Yalınay**	Introduction to biostatistics, measures of central tendency and dispersion **Dr.H. Tüzün**
16:30 – 17:20	**ELECTIVE COURSES**		**Turkish Language**		Distributions **Dr. C. Özbaş**
				18:00-18:50 Ataturk's Principles and History of His Revolutions	

Week 3	10.11.2025	11.11.2025	12.11.2025	13.11.2025	14.11.2025
08:30 – 09:20	Biological Effects of extremely low frequency (ELF) E and B Fields: Epidemiologic and experimental studies **Dr. A. Tomruk**	**TURKISH LANGUAGE EXAM**	Free Study Time	**ENGLISH EXAM**	Free Study Time
09:30 – 10:20			Free Study Time		Mendelian - Non-Mendelian Inheritance **Dr. A.S. Yar Sağlam**
10:30 – 11:20	Fatty acids and triglycerides **Dr. K. Ünal**		Free Study Time		Mendelian - Non-Mendelian Inheritance **Dr. A.S. Yar Sağlam**
11:30 – 12:20			Free Study Time		Mendelian - Non-Mendelian Inheritance **Dr. A.S. Yar Sağlam**
13:30 – 14:20	Steorids **Dr. N. Samet YILMAZ**	Phospolipids and glycolipids **Dr. K. Ünal**	**ATATURK'S PRİNCİPLES AND HISTORY OF HIS REVOLUTIONS EXAM**	**ENGLISH EXAM**	**Biostatistic Practice 2:** Data analysis, reporting and presenting data
14:30 – 15:20	Steorids **Dr. N. Samet YILMAZ**	Medical Ethics **Dr. N. Çençen**			
15:30 – 16:20	**ELECTIVE COURSES MID-TERM EXAM**	Medical Ethics **Dr. N. Çençen**			**Critical Thinking** Small Group Studies - 2
16:30 – 17:20		Free Study Time			

Week 4	17.11.2025	18.11.2025	19.11.2025	20.11.2025	21.11.2025
08:30 – 09:20	Fundamental Concepts of Genetics **Dr. E. Konaç**	**M. Biology Lab.** Cell culture of peripheral blood, chromosome staining and banding techniques Group A **M. Biochemistry Lab.** Chromatographic determination of amino acids in urine Group B	Mobile Genetic elements **Dr. D. D. Usta Salimi**	Biological Effects of RF/MW Radiation, , international EM field standards for EM radiation protection:General public and occupational exposure standards, Practical Measures for EM Radiation Protection **Dr. A. Tomruk**	**Critical Thinking** Small Group Studies - 3
09:30 – 10:20			Organization of the human genome **Dr. D. D. Usta Salimi**		
10:30 – 11:20	Population Genetics **Dr. P. Telkoparan Akıllılar**	**M. Biology Lab.** Cell culture of peripheral blood, chromosome staining and banding techniques Group B **M. Biochemistry Lab.** Chromatographic determination of amino acids in urine Group A	Vitamins and cofactors: water soluble **Dr. C. Karakaya**	Classification of cell death **Dr. H.İ. Önen**	Methods in History of Medicine and Medical Evolution **Dr.N. Çençen**
11:30 – 12:20					
13:30 – 14:20	**English**	Lipoproteins **Dr. N. Samet YILMAZ**	Free Study Time	Vitamins and cofactors: water soluble **Dr. C. Karakaya**	Vitamins and cofactors: lipid soluble **Dr. C. Karakaya**
14:30 – 15:20	**English**		Free Study Time	Vitamins and cofactors: lipid soluble **Dr. C. Karakaya**	
15:30 – 16:20	**ELECTIVE COURSES**	Physician-Patient Relationships: Evolution, Ethical Principles and Other Basic Aspects **Dr.N. Çençen**	Free Study Time	Free Study Time	Biological Effects of RF/MW Radiation, , international EM field standards for EM radiation protection:General public and occupational exposure standards, Practical Measures for EM Radiation Protection **Dr. A. Tomruk**
16:30 – 17:20	**ELECTIVE COURSES**		**Turkish Language**	Free Study Time	Free Study Time
				18:00-18:50 Ataturk's Principles and History of His Revolutions	

Week 5	24.11.2025	25.11.2025	26.11.2025	27.11.2025	28.11.2025
08:30 – 09:20	Free Study Time	**M. Biology Lab.** Karyotype; Pedigree method Group A	Free Study Time	Molecular biology of cancer **Dr. N. Varol**	**Critical Thinking** Small Group Studies - 4
09:30 – 10:20	Free Study Time	**M. Biochemistry Lab.** pHmeter Group B	Cell differentiation and developmental molecular biology **Dr. K. G. Esentürk Yayla**	Molecular biology of cancer **Dr. N. Varol**	
10:30 – 11:20	Ph and buffer systems **Dr. C. Karakaya**	**M. Biology Lab.** Karyotype; Pedigree method Group B	Cell differentiation and developmental molecular biology **Dr. K. G. Esentürk Yayla**	Molecular biology of cancer **Dr. N. Varol**	Membrane and transport **Dr. A. Sepici Dinçel**
11:30 – 12:20		**M. Biochemistry Lab.** pHmeter Group A	Cell differentiation and developmental molecular biology **Dr. K. G. Esentürk Yayla**	Intracellular and extracellular fluids and their compositions **Dr. C. Karakaya**	
13:30 – 14:20	**English**	Epigenetic mechanisms **Dr. E. Konaç**	Introduction to siginificance test **Dr.F.N.Aksakal**	Non-Parametric tests **Dr. F. N. Aksakal**	Personal genome Project and What is personalized medicine? **Dr. H.İ. Önen**
14:30 – 15:20	**English**		Parametric tests **Dr.F.N.Aksakal**		
15:30 – 16:20	**ELECTIVE COURSES**	Prehippocratic Medicine **Dr. N. Çençen**	Parametric tests **Dr.F.N.Aksakal**	Free Study Time	Medieval Medicine **Dr. N. Çençen**
16:30 – 17:20	**ELECTIVE COURSES**	Hippocratic Medicine **Dr. N. Çençen**	**Turkish Language**	Free Study Time	Islamic Medicine **Dr.N. Çençen**
				18:00-18:50 Ataturk's Principles and History of His Revolutions	

Week 6	01.12.2025	02.12.2025	03.12.2025	04.12.2025	05.12.2025
08:30 – 09:20	Free Study Time	Free Study Time	Free Study Time	Free Study Time	**FROM MOLECULE TO CELL COMMITTEE EXAM**
09:30 – 10:20	Stem Cell Biology **Dr. N. Varol**	Free Study Time	Free Study Time	Free Study Time	
10:30 – 11:20	Recombinant DNA technology and gene therapy **Dr. D. D. Usta Salimi**	Free Study Time	Free Study Time	Free Study Time	
11:30 – 12:20		Contemporary Scientific medicine and Features of the 20th Century Medicine **Dr.N. Çençen**	Free Study Time	Free Study Time	
13:30 – 14:20	**English**	Panel: Molecular Epidemiology	Free Study Time	Free Study Time	
14:30 – 15:20	**English**	History of Turkish Medicine (Before the Republic Period) **Dr. N. Çençen**	Free Study Time	Free Study Time	
15:30 – 16:20	**ELECTIVE COURSES**	History of Turkish Medicine (Republic Period) **Dr.N. Çençen**	Free Study Time	Free Study Time	
16:30 – 17:20	**ELECTIVE COURSES**	Free Study Time	**Turkish Language**	Free Study Time	
				18:00-18:50 Ataturk's Principles and History of His Revolutions	