

**GAZİ UNIVERSITY MEDICAL FACULTY**  
**PHASE I – FROM MOLECULE TO CELL COMMITTEE**  
**(30 OCTOBER 2024 – 6 DECEMBER 2024)**

<b>COURSES</b>	<b>THEORETICAL</b>	<b>LABORATORY</b>	<b>PRACTICAL</b>	<b>TOTAL</b>
Medical Biology	34	2x4	-	36
Medical Biochemistry	23	6x2	-	29
Biophysics	7	-	-	5
Public Health	12	-	8	20
Medical History and Ethics	18	-	-	18
Panel	1	-	-	1
<b>TOTAL</b>	<b>95</b>	<b>8</b>	<b>8</b>	<b>111</b>
<b>ELECTIVE COURSE</b>	10	-	-	10
<b>INTRODUCTION TO CLINICAL PRACTICE</b>				
<b>CRITICAL THINKING AND ART COMMITTEE</b>	8	-	8	16
<b>TOTAL</b>	<b>113</b>	<b>8</b>	<b>16</b>	<b>137</b>
<b>FREE STUDY TIME</b>	<b>58</b>			

**Total 28 workdays.**

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

**OBLIGATORY COURSES**

Turkish Language	10
Atatürk's Principles and History of His Revolutions	10
English	10

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. Dr. Alper CEYLAN
Vice Dean	Doç. Dr. Nazmi Mutlu KARAKAŞ
Vice Dean	Doç. Dr. Asiye UĞRAŞ DİKMEN
Head Coordinator	Prof. Dr. Çiğdem ÖZER
Assistant Head Coordinator	Prof. Dr. Mehmet Ali ERGÜN
Assistant Head Coordinator	Prof. Dr. Akif Muhtar ÖZTÜRK
<b>Phase I Coordinator</b>	<b>Dr. Öğr. Üyesi Meltem SEVGİLİ</b>
<b>Assistant Phase I Coordinator</b>	<b>Dr. Öğr. Üyesi Duygu Deniz USTA SALIMI</b>
<b>Assistant Phase I Coordinator</b>	<b>Öğr. Gör. Dr. Burak KAYABAŞI</b>
<b>Assistant Phase I Coordinator</b>	<b>Öğr. Gör. Dr. Sidre ERGANİŞ</b>

### 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. Pelin TELKOPARAN AKILLILAR	Dr. Kübranur ÜNAL	
Dr. Nuray VAROL	Dr. Niyazi SAMET YILMAZ	
Dr. Duygu Deniz Usta SALIMI	Dr. Neslihan BUKAN	
BIOPHYSICS	MEDICAL HISTORY AND ETHICS	CRITICAL THINKING AND ART
Dr. Arın TOMRUK	Dr. Namık ÇENÇEN	Dr. Meltem YALINAY
		Dr. Serdar KULA
		Dr. Hayrunnisa BOLAY BELEN

<b>CRITICAL THINKING AND ART COORDINATOR</b>	Dr. Meltem YALINAY
<b>ELECTIVE COURSE COORDINATOR</b>	Dr. Ergin DİLEKÖZ

## 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	28.10.2024 MONDAY	29.10.2024 TUESDAY	30.10.2024 WEDNESDAY	31.10.2024 THURSDAY	01.11.2024 FRIDAY
08:30 – 09:20	-	-	Electromagnetic (EM) Pollution: Electromagnetic Spectrum, natural and man-made sources of EM Pollution <b>Dr. A. Tomruk</b>	Free Study Time	Free Study Time
09:30 – 10:20	-	-	Electromagnetic (EM) Pollution: Electromagnetic Spectrum, natural and man-made sources of EM Pollution <b>Dr. A. Tomruk</b>	Free Study Time	Free Study Time
10:30 – 11:20	-	-	Classification of Carbohydrate and monosaccharides <b>Dr. M. Kavutçu</b>	Exam evaluation and coordinator meeting	Polysaccharides and other carbohydrates <b>Dr. M. Kavutçu</b>
11:30 – 12:20	-	-	Disaccharides <b>Dr. M. Kavutçu</b>	WHITE COAT organization information	Glycoproteins and derivatives <b>Dr. N. S. Yılmaz</b>
13:30 – 14:20	-	-	Epidemiology and its application topics <b>Dr. C. Özbaş</b>	WHITE COAT CEREMONY	Glycoproteins and derivatives <b>Dr. N. S. Yılmaz</b>
14:30 – 15:20	-	-	Planning an epidemiological research <b>Dr. C. Özbaş</b>		Study population, sample and sampling methods <b>Dr. C. Özbaş</b>
15:30 – 16:20	-	-	Free Study Time		Data collection, Questionnaire preparing <b>Dr.H. Tüzün</b>
16:30 – 17:20	-	-	Turkish Language		Free Study Time
18:00 - 18:50				Ataturk's Principles and History of His Revolutions	

Week 2	04.11.2024 MONDAY	05.11.2024 TUESDAY	06.11.2024 WEDNESDAY	07.11.2024 THURSDAY	08.11.2024 FRIDAY
08:30 – 09:20	<b>Biochemistry Lab.</b> Analysis of reducing properties of carbohydrates Group A	The emergence of the first cell <b>Dr. P. Telkoparan Akıllılar</b>	<b>Biostatistic Practice1:</b> Planning a research, data collection and entry	Sosyal Medya ve Eleştirel Düşünme <b>Dr. S. Kula</b>	Critical Thinking Small Group Studies - 1
09:30 – 10:20		Endosymbiosis and eukaryotic cell development <b>Dr. P. Telkoparan Akıllılar</b>		Sosyal Medya ve Eleştirel Düşünme <b>Dr. S. Kula</b>	
10:30 – 11:20	<b>Biochemistry Lab.</b> Analysis of reducing properties of carbohydrates Group B	Physician's identity, Deontology and concepts of medical ethics <b>Dr.N. Çençen</b>		Control Mechanisms of Gene Expression <b>Dr. A.S. Yar Sağlam</b>	Fundamental Concepts of Genetics <b>Dr. E. Konaç</b>
11:30 – 12:20		Physician's identity, Deontology and concepts of medical ethics <b>Dr.N. Çençen</b>		Control Mechanisms of Gene Expression <b>Dr. A.S. Yar Sağlam</b>	Fundamental Concepts of Genetics <b>Dr. E. Konaç</b>
13:30 – 14:20	<b>ENGLISH</b>	Presentation of data, preparation of tables and graphics <b>Dr.H. Tüzün</b>	The evolution of genes and genomes <b>Dr. P. Telkoparan Akıllılar</b>	Control Mechanisms of Gene Expression <b>Dr. A.S. Yar Sağlam</b>	Medical Ethics <b>Dr.N. Çençen</b>
14:30 – 15:20	<b>ENGLISH</b>	Eleştirel ve Yaratıcı Düşünme Süreçleri <b>Dr. M. Yalınay</b>	Medical Ethics <b>Dr.N. Çençen</b>	Eleştirel Düşünme ve Yaratıcı Problem Çözme Becerileri <b>Dr. M. Yalınay</b>	Medical Ethics <b>Dr.N. Çençen</b>
15:30 – 16:20	<b>ELECTIVE COURSES</b>	Eleştirel ve Yaratıcı Düşünme Süreçleri <b>Dr. M. Yalınay</b>	Free Study Time	Eleştirel Düşünme ve Yaratıcı Problem Çözme Becerileri <b>Dr. M. Yalınay</b>	Introduction to biostatistics, measures of central tendency and dispersion <b>Dr.H. Tüzün</b>
16:30 – 17:20	<b>ELECTIVE COURSES</b>	Free Study Time	<b>Turkish Language</b>	Free Study Time	Distributions <b>Dr. C. Özbaş</b>
				<b>18:00-18:50 Ataturk's Principles and History of His Revolutions</b>	

Week 3	11.11.2024 MONDAY	12.11.2024 TUESDAY	13.11.2024 WEDNESDAY	14.11.2024 THURSDAY	15.11.2024 FRIDAY
08:30 – 09:20	Fatty acids and triglycerides <b>Dr. K. Ünal</b>	Medical Ethics <b>Dr.N. Çençen</b>	Parametric tests <b>Dr.F.N.Aksakal</b>	Free Study Time	<b>Critical Thinking Small Group Studies - 2</b>
09:30 – 10:20	Fatty acids and triglycerides <b>Dr. K. Ünal</b>	Medical Ethics <b>Dr.N. Çençen</b>	Parametric tests <b>Dr.F.N.Aksakal</b>	Non-Parametric tests <b>Dr.F.N.Aksakal</b>	ENGLISH EXAM
10:30 – 11:20	Biological Effects of extremely low frequency (ELF) E and B Fields: Epidemiologic and experimental studies <b>Dr. A. Tomruk</b>	TURKISH EXAM	Steorids <b>Dr. N. Bukan</b>	Non-Parametric tests <b>Dr.F.N.Aksakal</b>	ENGLISH EXAM
11:30 – 12:20	Biological Effects of extremely low frequency (ELF) E and B Fields: Epidemiologic and experimental studies <b>Dr. A. Tomruk</b>	TURKISH EXAM	Steorids <b>Dr. N. Bukan</b>	Mendelian - Non-Mendelian Inheritance <b>Dr. A.S. Yar Sağlam</b>	Free Study Time
13:30 – 14:20	Introduction to siginificance test <b>Dr.F.N.Aksakal</b>	Phospolipids and glycolipids <b>Dr. K. Ünal</b>	HISTORY EXAM	Mendelian - Non-Mendelian Inheritance <b>Dr. A.S. Yar Sağlam</b>	<b>Biostatistic Practice 2:</b> Data analysis, reporting and presenting data
14:30 – 15:20	Free Study Time	Free Study Time	HISTORY EXAM	Mendelian - Non-Mendelian Inheritance <b>Dr. A.S. Yar Sağlam</b>	
15:30 – 16:20	<b>ELECTIVE COURSES MID-TERM EXAM</b>	Free Study Time	Fundamental Concepts of Genetics <b>Dr. E. Konaç</b>	Free Study Time	
16:30 – 17:20	<b>ELECTIVE COURSES MID-TERM EXAM</b>	Free Study Time	Fundamental Concepts of Genetics <b>Dr. E. Konaç</b>	Free Study Time	

Week 4	18.11.2024 MONDAY	19.11.2024 TUESDAY	20.11.2024 WEDNESDAY	21.11.2024 THURSDAY	22.11.2024 FRIDAY
08:30 – 09:20	General structure of chromosomes and classification of human chromosomes <b>Dr. D. D. Usta Salimi</b>	<b>M. Biology Lab.</b> Cell culture of peripheral blood, chromosome staining and banding techniques Group A	Free Study Time	Vitamins and cofactors: water soluble <b>Dr. C. Karakaya</b>	Critical Thinking Small Group Studies - 3
09:30 – 10:20	General structure of chromosomes and classification of human chromosomes <b>Dr. D. D. Usta Salimi</b>	<b>M. Biochemistry Lab.</b> Chromatographic determination of amino acids in urine Group B	Cell differentiation and developmental molecular biology <b>Dr. E. Konaç</b>	Vitamins and cofactors: lipid soluble <b>Dr. C. Karakaya</b>	
10:30 – 11:20	Lipoproteins <b>Dr. N. Bukan</b>	<b>M. Biology Lab.</b> Cell culture of peripheral blood, chromosome staining and banding techniques Group B	Cell differentiation and developmental molecular biology <b>Dr. E. Konaç</b>	Classification of cell death <b>Dr. H.İ. Önen</b>	Methods in History of Medicine and Medical Evolution <b>Dr.N. Çençen</b>
11:30 – 12:20	Lipoproteins <b>Dr. N. Bukan</b>	<b>M. Biochemistry Lab.</b> Chromatographic determination of amino acids in urine Group A	Cell differentiation and developmental molecular biology <b>Dr. E. Konaç</b>	Classification of cell death <b>Dr. H.İ. Önen</b>	Methods in History of Medicine and Medical Evolution <b>Dr.N. Çençen</b>
13:30 – 14:20	ENGLISH	Population Genetics <b>Dr. P. Telkoparan Akıllılar</b>	Vitamins and cofactors: water soluble <b>Dr. C. Karakaya</b>	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 <b>Dr. A. Tomruk</b>	Vitamins and cofactors: lipid soluble <b>Dr. C. Karakaya</b>
14:30 – 15:20	ENGLISH		Vitamins and cofactors: water soluble <b>Dr. C. Karakaya</b>		Vitamins and cofactors: lipid soluble <b>Dr. C. Karakaya</b>
15:30 – 16:20	ELECTIVE COURSES	Physician-Patient Relationships: Evolution, Ethical Principles and Other Basic Aspects <b>Dr.N. Çençen</b>	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 <b>Dr. A. Tomruk</b>
16:30 – 17:20	ELECTIVE COURSES		Turkish Language	Free Study Time	
				18:00-18:50 <b>Ataturk's Principles and History of His Revolutions</b>	

Week 5	25.11.2024 MONDAY	26.11.2024 TUESDAY	27.11.2024 WEDNESDAY	28.11.2024 THURSDAY	29.11.2024 FRIDAY
08:30 – 09:20	Ph and butter systems Dr. C. Karakaya	<b>M. Biology Lab.</b> Karyotype; Pedigree method Group A	Free Study Time	Free Study Time	<b>Critical Thinking</b> Small Group Studies - 4
09:30 – 10:20	Ph and butter systems Dr. C. Karakaya	<b>M. Biochemistry Lab.</b> pHmeter Group B	Free Study Time	Molecular biology of cancer Dr. N. Varol	
10:30 – 11:20	Prehippocratic Medicine (Instinctive Medicine, Mystical Medicine, civilizations of Antiquity Dr.N. Çençen	<b>M. Biology Lab.</b> Karyotype; Pedigree method Group B  <b>M. Biochemistry Lab.</b> pHmeter Group A	Contemporary Scientific medicine and Features of the 20th Century Medicine Dr.N. Çençen	Stem Cell Biology Dr. N. Varol	Membrane and transport Dr. A. Sepici Dinçel
11:30 – 12:20	Hippocratic Medicine Dr.N. Çençen		History of Turkish Medicine (Before the Republic Period) Dr.N. Çençen	Intracellular and extracellular fluids and their compositions Dr. C. Karakaya	Membrane and transport Dr. A. Sepici Dinçel
13:30 – 14:20	ENGLISH	Epigenetic mechanisms Dr. E. Konaç	Molecular biology of cancer Dr. N. Varol	Mobile Genetic elements Dr. D. D. Usta Salimi	Personal genome Project and What is personalized medicine? Dr. H.İ. Önen
14:30 – 15:20	ENGLISH	Epigenetic mechanisms Dr. E. Konaç	Molecular biology of cancer Dr. N. Varol	Organization of the human genome Dr. D. D. Usta Salimi	Personal genome Project and What is personalized medicine? Dr. H.İ. Önen
15:30 – 16:20	ELECTIVE COURSES	Medieval Medicine Dr.N. Çençen	Free Study Time	Free Study Time	Free Study Time
16:30 – 17:20	ELECTIVE COURSES	Islamic Medicine Dr.N. Çençen	Turkish Language	Free Study Time	Free Study Time
				18:00-18:50 Ataturk's Principles and History of His Revolutions	



Week 6	02.12.2024 MONDAY	03.12.2024 TUESDAY	04.12.2024 WEDNESDAY	05.12.2024 THURSDAY	06.12.2024 FRIDAY
08:30 – 09:20	Free Study Time	Free Study Time	Free Study Time	Free Study Time	<b>FROM MOLECULE TO CELL COMMITTEE THEORICAL EXAM</b>
09:30 – 10:20	Free Study Time	History of Turkish Medicine (Republic Period) <b>Dr.N. Çençen</b>	Free Study Time	Free Study Time	
10:30 – 11:20	Free Study Time	Recombinant DNA technology and gene therapy <b>Dr. D. D. Usta Salimi</b>	Free Study Time	Free Study Time	
11:30 – 12:20	Free Study Time	Recombinant DNA technology and gene therapy <b>Dr. D. D. Usta Salimi</b>	Free Study Time	Free Study Time	
13:30 – 14:20	<b>ENGLISH</b>	<b>Panel:</b> Molecular Epidemiology	Free Study Time	Free Study Time	
14:30 – 15:20	<b>ENGLISH</b>	Free Study Time	Free Study Time	Free Study Time	
15:30 – 16:20	<b>ELECTIVE COURSES</b>	Free Study Time	Free Study Time	Free Study Time	
16:30 – 17:20	<b>ELECTIVE COURSES</b>	Free Study Time	<b>Turkish Language</b>	Free Study Time	
				<b>18:00-18:50 Ataturk's Principles and History of His Revolutions</b>	