GAZİ UNIVERSITY MEDICAL FACULTY

PHASE I – CELL BIOLOGY COMMITTEE

(8 DECEMBER 2025 – 15 JANUARY 2026)

COURSES	THEORETICAL	LABORATORY	PRACTICAL	TOTAL
Medical Microbiology	36	1x8	-	44
Medical Biochemistry	10	2x3	-	16
Histology and Embryology	8	2x4	-	16
Immunology	5	-	-	5
Medical Genetics	16	2x2	-	20
Professionalism and Human Sciences in Medicine	6	-	-	6
TOTAL	**79**	**26**		**107**
ELECTIVE COURSE	10	-	-	10
INTRODUCTION TO CLINICAL PRACTICE				
CLINICAL SKILLS EDUCATION (CSE)		2x3		6
TOTAL	89	32		123
FREE STUDY TIME	73			

Total 28 workdays.

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

OBLIGATORY COURSES

Turkish Language	9
Atatürk's Principles and History of His Revolutions	9
English	9

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
Phase I Coordinator	**Doç. Dr. Volkan MEDENİ**
Assistant Phase I Coordinator	**Dr. Öğr. Üyesi Duygu Deniz USTA SALİMİ**
Assistant Phase I Coordinator	**Dr. Öğr. Üyesi Samet YILMAZ**
Assistant Phase I Coordinator	**Öğr. Gör. Dr. Burak KAYABAŞI**
Assistant Phase I Coordinator	**Öğr. Gör. Dr. Sidre ERGANİŞ**
Assistant Phase I Coordinator	**Öğr. Gör. Dr. Aynur ÇOBAN**

MEMBERS OF COMMITTEE

MEDICAL MICROBIOLOGY	**MEDICAL BIOCHEMISTRY**	**HISTOLOGY AND EMBRYOLOGY**
Dr. Ayşe KALKANCI	Dr. Aylin SEPİCİ DİNÇEL	Dr. Duygu DAYANIR
Dr. Meltem YALINAY	Dr. N. Samet YILMAZ	Dr. S. Esra ÖZKOÇER
Dr. Kayhan ÇAĞLAR	Dr. Cengiz KARAKAYA	Dr. Zeynep YIĞMAN
Dr. Elif Ayça ŞAHİN		
Dr. Sidre ERGANİŞ		
IMMUNOLOGY	**MEDICAL GENETICS**	**PROFESSIONALISM IN MEDICINE AND HUMAN SCIENCES IN MEDICINE**
Dr. Vedat BULUT	Dr. Meral YİRMİBEŞ KARAOĞUZ	Dr. F. Sedef TUNAOĞLU
Dr. Resul KARAKUŞ	Dr. Mehmet Ali ERGÜN	Dr. Vedat BULUT
Dr. Nihan ÖRÜKLÜ	Dr. Yusuf BAHAP	Dr. Burcu KÜÇÜK BİÇER

CLINICAL SKILLS EDUCATION (CSE) COORDINATO	Dr. Nurten İNAN
ELECTIVE COURSE COORDINATOR	Dr. Ergin DİLEKÖZ

LEARNING OBJECTIVES AND GOALS

Information

1. To be able to interpret the digestion and metabolism of nucleoproteins and evaluate their relationship with diseases
2. To be able to interpret Hem synthesis steps, defects and clinical findings
3. To understand the metabolism of inorganic compounds in the body and their importance in clinical situations.
4. To be able to define the structural features and life cycles of microorganisms (virus, bacteria, fungus, parasite)
5. To be able to explain the terms and methods of sterilization and disinfection
6. To be able to define antimicrobial drugs and resistance mechanisms, explain antibiotic susceptibility testing methods
7. To be able to define the basic concepts of immunology and the host's general defense methods
8. To be able to describe the types of cell divisions
9. To be able to describe the formation processes of necrosis and apoptosis, histological changes observed in the cell and the elimination process of residues.
10. To be able to count the histological structure of cell membrane, organelles, nucleus and inclusions
11. Ability to classify chromosomes and recognize numerical and structural chromosome anomalies
12. Ability to list the indications for prenatal diagnosis by understanding the differences between invasive and noninvasive prenatal diagnosis/screening

Skill

13. To be able to distinguish cell shapes and microorganisms by using the light microscope.
14. To be able to apply staining methods used in the examination of microorganisms, cultivation methods for their production and antibiotic sensitivity tests.
15. To be able to apply uric acid, bilirubin, urobilinogen, inorganic phosphate measurement method
16. To be able to measure pulse and respiratory rate and blood pressure, wash hands, put on and take off sterile gloves, wrap elastic bandages, and apply intramuscular injection skills.
17. To be able to distinguish the diagnostic limits and their use in clinical genetics by defining the differences between conventional and molecular cytogenetic techniques

Attitude

18. Being aware of the importance of group work and cooperation
19. Ability to interactively discuss algorithms in the diagnosis of chromosomal rearrangements and genomic variants

Week 1	08.12.2025 MONDAY	09.12.2025 TUESDAY	10.12.2025 WEDNESDAY	11.12.2025 THURSDAY	12.12.2025 FRIDAY
08:30 – 09:20	Free Study Time	Free Study Time	Morphology and staining of bacteria **Dr. A. E. Şahin**	**CSE- Group B** **His. Emb. Lab. Microscope, Spherical cell, Polyhedral cell, Pyriform cell Group A**	**M. Mic. Lab. Equipment and media used in microbiology laboratory Group A** **M. Bioch. Lab. Determination of uric acid Group B**
09:30 – 10:20	Chromosome structure, nomenclature and tenninology **Dr. M. Yirmibeş Karaoğuz**	Growth and metabolism of bacteria **Dr. K. Çağlar**	Synthesis and catabolism of porphyrins **Dr. N. S. Yılmaz**		
10:30 – 11:20	Chromosome structure, nomenclature and tenninology **Dr. M. Yirmibeş Karaoğuz**	Cell structure, cytoplasm and components **Dr. D. Dayanır**	Synthesis and catabolism of porphyrins **Dr. N. S. Yılmaz**	**CSE-Group A** **His. Emb. Lab. Microscope, Spherical cell, Polyhedral cell, Pyriform cell Group B**	**M. Mic. Lab. Equipment and media used in microbiology laboratory Group B** **M. Bioch. Lab. Determination of uric acid Group A**
11:30 – 12:20	History and nomenclature of microbiology **Dr. A. Kalkancı**	Cell structure, cytoplasm and components **Dr. D. Dayanır**	Porphyria **Dr. N. S. Yılmaz**		
13:30 – 14:20	**ENGLISH**	Microscopy types and use of area **Dr. Z. Yığman**	Numerical chromosome aberrations: overview of common examples **Dr. M. Yirmibeş Karaoğuz**	Definiation of inclusion and nucleus structure **Dr. S. E. Özkoçer**	Structural chromosomal rearrangements and clinical examples **Dr. M. Yirmibeş Karaoğuz**
14:30 – 15:20		Bacterial cell structure **Dr. A.E.Şahin**	Numerical chromosome aberrations: overview of common examples **Dr. M. Yirmibeş Karaoğuz**	Definiation of inclusion and nucleus structure **Dr. S. E. Özkoçer**	Structural chromosomal rearrangements and clinical examples **Dr. M. Yirmibeş Karaoğuz**
15:30 – 16:20	**ELECTIVE COURSES**	Bacterial cell structure **Dr. A.E.Şahin**	Free Study Time	Free Study Time	Free Study Time
16:30 – 17:20		Free Study Time	**Turkish Language**	Free Study Time	Free Study Time
18:00 - 18:50				**Ataturk's Principles and History of His Revolutions**	

Week 2	15.12.2025 MONDAY	16.12.2025 TUESDAY	17.12.2025 WEDNESDAY	18.12.2025 THURSDAY	19.12.2025 FRIDAY
08:30 – 09:20	Free Study Time	Prenatal diagnosis of chromosomal diseases **Dr. M. Yirmibeş Karaoğuz**	Medicine and Philosophy **Dr. V. Bulut**	Free Study Time	Histochemical techniques **Dr. Z. Yığman**
09:30 – 10:20	Free Study Time	Identification of chromosomal alterations by molecular cytogenetic techniques **Dr. M. Yirmibeş Karaoğuz**	Medicine and Philosophy **Dr. V. Bulut**	Cell division, differentiation and aging **Dr. D. Dayanır**	Histochemical techniques **Dr. Z. Yığman**
10:30 – 11:20	Free Study Time	Bacterial genetics **Dr. M. Yalınay**	**M. Mic. Lab. Bacteria and colony Morphologies; staining methods Group A**	Mechanism of action of antimicrobial drugs and resistance mechanisms **Dr. M. Yalınay**	Genomic variants and clinical classification **Dr. Y. Bahap**
11:30 – 12:20	Free Study Time	Bacterial genetics **Dr. M. Yalınay**	**M. Gen. Lab. Prenatal and postnatal cell culture Group B**	Mechanism of action of antimicrobial drugs and resistance mechanisms **Dr. M. Yalınay**	Genomic variants and clinical classification **Dr. Y. Bahap**
13:30 – 14:20	**ENGLISH**	Bacteriophages **Dr. M. Yalınay**	**M. Mic. Lab. Bacteria and colony Morphologies; staining methods Group B**	Bacteria-host relationships **Dr. K. Çağlar**	**His. Emb. Lab. Squamous cell, Cuboidal cell, Columnar cell, Fusiform cell Group B**
14:30 – 15:20		Digestion of nucleic acids **Dr. A. Sepici Dinçel**	**M. Gen. Lab. Prenatal and postnatal cell culture Group A**	Bacteria-host relationships **Dr. K. Çağlar**	
15:30 – 16:20	**ELECTIVE COURSES**	De nova synthesis of purine nucleodites **Dr. A. Sepici Dinçel**	Free Study Time	Genetic counseling in prenatal and postnatal period regarding chromosomal diseases **Dr. M. Yirmibeş Karaoğuz**	**His. Emb. Lab. Squamous cell, Cuboidal cell, Columnar cell, Fusiform cell Group A**
16:30 – 17:20		Purine catabolism **Dr. A. Sepici Dinçel**	**Turkish Language**	Free Study Time	
18:00 - 18:50				**Ataturk's Principles and History of His Revolutions**	

Week 3	22.12.2025 MONDAY	23.12.2025 TUESDAY	24.12.2025 WEDNESDAY	25.12.2025 THURSDAY	26.12.2025 FRIDAY
08:30 – 09:20	Free Study Time	Mendelian and non-Mendelian disorders and pedigree charts **Dr. M. A. Ergün**	Free Study Time	**M. Mic. Lab. Antibiotic susceptibility tests Group A**	**M. Bioch. Lab. Determinations of urine bilirubine and urobilinogen Group B**
09:30 – 10:20	Free Study Time	Mendelian and non-Mendelian disorders and pedigree charts **Dr. M. A. Ergün**	Genotype- phenotype correlations **Dr. M. A. Ergün**		
10:30 – 11:20	Taxonomy and evaluation of fungi **Dr. A. Kalkancı**	Pyrimidine biosynhesis and catabolism **Dr. A. Sepici Dinçel**	Multifactorial genetic disorders **Dr. M. A. Ergün**	**M. Mic. Lab. Antibiotic susceptibility tests Group B**	**M. Bioch. Lab. Determinations of urine bilirubine and urobilinogen Group A**
11:30 – 12:20	Laboratory methods in antibiotic selection **Dr. M. Yalınay**	Regulation of purine and pyrimidine synthesis **Dr. A. Sepici Dinçel**	Familial Cancer Syndromes **Dr. M. A. Ergün**		
13:30 – 14:20	**ENGLISH**	**His. Emb. Lab. Special stains Group A** **M. Gen. Lab. Harvesting and banding procedure of huınan chromosomes-images of abnomıal karyotypes Group B**	Defense mechanisms of the host against bacteria **Dr. K. Çağlar**	Fungi-host relationship **Dr. A. Kalkancı**	Antigen **Dr. R. Karakuş**
14:30 – 15:20			Sterilization and disinfection **Dr. K. Çağlar**	Virulence factors of fungi and mycotoxins **Dr. A. Kalkancı**	Antibody **Dr. R. Karakuş**
15:30 – 16:20	**ELECTIVE COURSES**	**His. Emb. Lab. Special stains Group B** **M. Gen. Lab. Harvesting and banding procedure of huınan chromosomes-images of abnomıal karyotypes Group A**	Sterilization and disinfection **Dr. K. Çağlar**	General properties of molds **Dr. A. Kalkancı**	General properties and structure of viruses **Dr. A. E. Şahin**
16:30 – 17:20			**Turkish Language**	Free Study Time	General properties and structure of viruses **Dr. A. E. Şahin**
18:00 - 18:50				**Ataturk's Principles and History of His Revolutions**	

Week 4	29.12.2025 MONDAY	30.12.2025 TUESDAY	31.12.2025 WEDNESDAY	01.01.2026 THURSDAY	02.01.2026 FRIDAY
08:30 – 09:20	General properties of yeast **Dr. A. Kalkancı**	**CSE**	Virus-host relationship **Dr. K. Çağlar**	**YENİ YIL (NEW YEAR)**	Free Study Time
09:30 – 10:20	Viral genetics **Dr. A. Kalkancı**		Virus-host relationship **Dr. K. Çağlar**		Free Study Time
10:30 – 11:20	Inorganic metabolism **Dr. C. Karakaya**		Web immunology **Dr. V. Bulut**		**M. Mic. Lab. Fungi Group A**
11:30 – 12:20	Inorganic metabolism **Dr. C. Karakaya**		Introduction to the immune system: Defense mechanisms **Dr. V. Bulut**		
13:30 – 14:20	**ENGLISH**	**M. Mic. Lab. Sterilization and disinfection Group A** **M. Bioc. Lab. Determination of serum inorganic phosphate Group B**	Free Study Time		
14:30 – 15:20			Free Study Time		
15:30 – 16:20	**ELECTIVE COURSES**	**M. Mic. Lab.Sterilization and disinfection Group B** **M. Bioc. Lab. Determination of serum inorganic phosphate Group A**	Free Study Time		**M. Mic. Lab. Fungi Group B**
16:30 – 17:20			Free Study Time		

Week 5	05.01.2026 MONDAY	06.01.2026 TUESDAY	07.01.2026 WEDNESDAY	08.01.2026 THURSDAY	09.01.2026 FRIDAY
08:30 – 09:20	**M. Mic. Lab. Serological methods Group A**	Free Study Time	**CSE**	Free Study Time	Introduction to parasitology and parasitism **Dr. K. Çağlar**
09:30 – 10:20		Free Study Time		Free Study Time	Epidemiology and control of parasitic infections **Dr. K. Çağlar**
10:30 – 11:20	**M. Mic. Lab. Serological methods Group B**	**5i SINAV**		**5i SINAV**	General properties of protozoa **Dr. S. Erganiş**
11:30 – 12:20					General properties of helminths **Dr. S. Erganiş**
13:30 – 14:20	Viral oncogenesis **Dr. K. Çağlar**	Serological reactions and microorganism antigens **Dr. K. Çağlar**	**5i SINAV**	Free Study Time	Philosophy of Science **Dr. B. Küçük Biçer**
14:30 – 15:20	Antigen-antibody reactions and serological tests **Dr. N. Örüklü**	Introduction to molecular microbiology **Dr. M. Yalınay**		Free Study Time	Philosophy of Science **Dr. B. Küçük Biçer**
15:30 – 16:20	**ELECTIVE COURSES FINAL**	Introduction to microbiota **Dr. M. Yalınay**	**CSE**	Free Study Time	Professionalism in Medicine **Dr. S. Tunaoğlu**
16:30 – 17:20				Free Study Time	Professionalism in Medicine **Dr. S. Tunaoğlu**

Week 6	12.01.2026 MONDAY	13.01.2026 TUESDAY	14.01.2026 WEDNESDAY	15.01.2026 THURSDAY	16.01.2026 FRIDAY
08:30 – 09:20	**M. Mic. Lab.** **Parasites Group A**	Free Study Time	**CELL BIOLOGY COMMITTEE PRACTİCAL EXAM**	**CELL BIOLOGY COMMITTEE THEORİCAL EXAM**	
09:30 – 10:20		Free Study Time			
10:30 – 11:20	**M. Mic. Lab.** **Parasites Group B**	Free Study Time			
11:30 – 12:20		Free Study Time			
13:30 – 14:20	Introduction to the immune response to microorganisms **Dr. A. Kalkancı**	**M. Mic. Lab.** **His. Emb. Lab.**	Free Study Time	Free Study Time	
14:30 – 15:20	Introduction to the immune response to microorganisms **Dr. A. Kalkancı**		Free Study Time	Free Study Time	
15:30 – 16:20	Free Study Time		Free Study Time	Free Study Time	
16:30 – 17:20	Free Study Time		Free Study Time	Free Study Time	