

**GAZI UNIVERSITY FACULTY OF MEDICINE****YEAR III, 2024-2025****NEOPLASIA AND HEMATOPOIETIC SYSTEM COURSE COMMITTEE****October 15 - November 05 2024****Examination: November 06, 2024 09:30 AM**

<b>Courses</b>	<b>Theoretical</b>	<b>Laboratory</b>	<b>Practice</b>	<b>Courses</b>
<b>INTERNAL MEDICINE (Hematology)</b>	<b>15</b>			<b>15</b>
<b>INTERNAL MEDICINE (Oncology)</b>	<b>2</b>			<b>2</b>
<b>PEDIATRICS (Hematology)</b>	<b>7</b>			<b>7</b>
<b>PEDIATRICS (Oncology)</b>	<b>3</b>			<b>3</b>
<b>PEDIATRICS (Allergy-Immunology)</b>	<b>1</b>			<b>1</b>
<b>MEDICAL PATHOLOGY</b>	<b>10</b>			<b>10</b>
<b>MEDICAL MICROBIOLOGY</b>	<b>6</b>	<b>1x8</b>		<b>7</b>
<b>MEDICAL PHARMACOLOGY</b>	<b>4</b>			<b>4</b>
<b>PUBLIC HEALTH</b>	<b>2</b>			<b>2</b>
<b>IMMUNOLOGY</b>	<b>2</b>			<b>2</b>
<b>MEDICAL GENETICS</b>	<b>2</b>			<b>2</b>
<b>NUCLEAR MEDICINE</b>	<b>1</b>			<b>1</b>
<b>RADIOLOGY</b>	<b>1</b>			<b>1</b>
<b>TOTAL</b>	<b>56</b>	<b>1</b>		<b>57</b>
<b>ELECTIVE COURSE</b>	<b>4x2</b>			<b>8</b>
<b>MEDICAL ENGLISH</b>	<b>4x2</b>			<b>8</b>
<b>EXAM QUESTIONS ANALYSIS and FEEDBACK</b>	<b>1</b>			<b>1</b>
<b>TOTAL</b>				<b>17</b>
<b>FREE RUN-TIME</b>				<b>47</b>

*Total: 15 work days*

**Medical English (face-to-face):** Starting from September 24, 2024. It is every Wednesday between 1.30 pm and 3.20 pm.

**Elective Course:** Starting from September 24, 2024. It is every Wednesday between 3.30 pm and 5.20 pm.

**Free run time definition:** Individual studying courses intended for learning objectives (clinical skills education, problem-based learning, etc.) in accordance with the present committee.

<b>Dean</b>	Prof.Dr. Alper CEYLAN
<b>Vice Dean</b>	Assoc.Prof.Dr. Nazmi Mutlu KARAKAŞ
<b>Vice Dean</b>	Assoc.Prof.Dr. Asiye UĞRAŞ DİKMEN
<b>Head Coordinator</b>	Prof.Dr. Çiğdem ÖZER
<b>Assistant Head Coordinator</b>	Prof.Dr. Akif Muhtar ÖZTÜRK
<b>Assistant Head Coordinator (Eng)</b>	Prof.Dr. M.Ali ERGÜN
<b>IIIrd year Coordinator</b>	Assoc.Prof.Dr. Hale Zeynep BATUR ÇAĞLAYAN
<b>Assistant IIIrd year Coordinator</b>	Assoc.Prof.Dr.Ergin DİLEKÖZ
<b>Assistant IIIrd year Coordinator</b>	Asist.Prof.Dr. Burak SEZENÖZ
<b>Assistant IIIrd year Coordinator</b>	Asist.Prof.Dr. Esra ERKOÇ ATAÖĞLU
<b>Assistant IIIrd year Coordinator</b>	Asist.Prof.Dr. Kamil İNCİ
<b>Clinical Skills Education (CSE) Coordinator</b>	Prof.Dr.Nurten İNAN
<b>Problem Based Learning (PBL) Coordinator</b>	Prof.Dr.Deniz KARÇALTINCABA
<b>Evidence Based Medicine (EBM) Coordinator</b>	Prof.Dr. Mehmet Ali ERGÜN
<b>Elective Course Coordinator</b>	Assoc.Prof.Dr.Ergin DİLEKÖZ
<b>Medical English</b>	Lecturer Elif KONAK BABAL

### MEMBERS OF COURSE COMMITTEE

<b>INTERNAL MEDICINE (Hematology)</b>	<b>PEDIATRICS (Hematology)</b>	<b>PEDIATRICS (Oncology)</b>	<b>MEDICAL MICROBIOLOGY</b>
Dr. Münci YAĞCI-7 Dr. Z. Arzu YEĞİN-8	Dr. Ülker KOÇAK-2 Dr. Deniz ASLAN-2 Dr. Zühre KAYA-2 Dr.Serap KIRKIZ KAYALI-1	Dr. F.Güçlü PINARLI-1 Dr. Özge VURAL-1 Dr. Arzu OKUR-1 <b>PEDIATRICS (Allergy-Immunology)</b> Dr. A.K. Baskın-1	Dr.Meltem YALINAY -1 Dr. Ayşe KALKANCI-4 Dr.Sidre ERGANIŞ- 1
<b>INTERNAL MEDICINE (Oncology)</b>	<b>RADIOLOGY</b>	<b>MEDICAL PATHOLOGY</b>	<b>PUBLIC HEALTH</b>
Dr.Fatih GÜRLER-1 Dr. Gözde SAVAŞ-1	Dr. Gonca ERBAŞ-1	Dr. Nalan AKYÜREK-3 Dr.Onur ERTUNÇ-5	Dr. Asiye UĞRAŞ DİKMEN-2
<b>MEDICAL GENETICS</b>	<b>NUCLEAR MEDICINE</b>	<b>MEDICAL PHARMACOLOGY</b>	<b>IMMUNOLOGY</b>
Dr. Mehmet Ali ERGÜN-2	Dr.L.Özlem ATAY-1	Dr. Süreyya BARUN-4	Dr.E.Ümit BAĞRIAÇIK-2

### AIM AND LEARNING OBJECTIVES OF COURSE

**Aim:** Following 12 days of Neoplasia and Hematopoietic system committee education, the students are expected to gain knowledge about the prevalence, importance, underlying mechanisms and diagnostic methods of neoplastic and hematopoietic system diseases, and, therapeutic agents and their mechanisms of action, built up on through understanding of the formation, development and pathology of hematopoietic system and tumor formation, development and pathophysiology.

### **LEARNING OBJECTIVES:**

#### **Knowledge:**

1. To be able to describe the concepts of embryonic stem cells, induced pluripotent stem cells and hematopoietic stem cells, to define hematopoietic stem cell and bone marrow micro environmental relationship, to summarize the bone marrow structure and function.
2. To be able to define the term bone marrow failure, to sort and list clinical and laboratory findings of the disease, to list the frequently observed causes of bone marrow failure, to be capable of approaching for preliminary and differential diagnosis.
3. To be able to list the causes of anemia which are common in childhood and adulthood, to list clinical and laboratory findings of anemia, to make differential diagnosis between the causes of anemia.
4. To be able to comprehend the physiology of iron-metabolism, to sort the clinical and pathological conditions observed frequently in iron metabolism, to summarize clinical and laboratory findings.
5. To be able to list the etiological factors of iron deficiency anemia, to tell clinical and laboratory findings and to make the differential diagnosis, to learn and comprehend the treatment methods and treatment follow-up, to sort the risk groups for iron deficiency and preventive measures and treatments.
6. To be able to define the concepts of megaloblastic and macrocytosis, to be able to list the etiological factors of megaloblastic anemia and macrocytosis, to be able to describe the absorption, transport and reactions of cobalamin and folic acid that are taking place in megaloblastic anemia physiopathology, to list the pathological and clinical conditions of cobalamin and folic acid metabolism, leading to megaloblastic anemia, the clinical and laboratory findings, the diagnosis and treatment methods, to be able to tell daily requirements for cobalamin and folic acid, to summarize risk groups and preventive measures for cobalamin and folate deficiency.
7. To be able to understand the concepts of coagulation and physiology of fibrinolysis in the context of haemostasis physiology, to classify congenital or acquired primary and secondary

hemostasis disorders and list the clinical and laboratory findings, to make differential diagnosis between hemorrhagic disorders, to describe the examination approach to a hemorrhagic patient, and to interpret first-step diagnostic tests.

8. To be able to identify the concepts of haemolysis and haemolytic anemia, to list the etiological factors of haemolysis and to classify the haemolytic anemia appropriately,

to list the differences between immunological and non-immunological hemolytic anomalies, to list the differences between intravascular and extravascular haemolysis, to list diagnostic methods and clinical and laboratory findings of a hemolytic anemia patient, to be able to differentiate between hemolytic anemia and other diseases those may be misdiagnosed.

9. To be able to interpret clinical and laboratory findings of hereditary hemolytic anemia, to explain the physiological role of erythrocyte membrane skeleton, to list and describe the names of crucial membrane proteins, and how deficiency of these proteins would effect the membrane and the shape of the erythrocyte, to interpret the hemolysis mechanisms and the role of spleen in hereditary spherocytosis, to describe clinical and laboratory findings, and, complications of hereditary spherocytosis and elliptocytosis, to describe the clinical manifestation of erythrocyte enzyme deficiencies, to classify the erythrocyte enzyme deficiencies, to list physiopathological, clinical and laboratory features of hereditary hemoglobin disorders and thalassemia syndromes, to comprehend the differential diagnostic and therapeutic methods, to sort and list the preventive techniques.

10. To be able to list the thrombotic events frequently observed in childhood and adulthood, to summarize the physiopathological progress and clinical and laboratory findings of thrombosis, to describe risky factors for thrombosis and preventive measures.

11. To be able to list the blood components and basic properties of these components, to explain the additional procedures applied to the blood components and the necessities of these procedures, to list the indications of the blood component therapy, to describe the basic principles to be followed during the blood component transfusion and the possible adverse effects that can develop.

12. To be able to define myeloproliferative diseases, to understand the pathophysiology of myeloproliferative diseases, to know the clinical and laboratory characteristics of myeloproliferative diseases, to list and explain the required diagnostic test for myeloproliferative diseases and how to interpret the test results, to discriminate myeloproliferative diseases.

13. To be able to classify the pathophysiology of lymphoma, to summarize the clinical and laboratory findings, and, diagnostic methods.

14. To be able to sort the types of plasma cell dyscrasias, to describe the common features and the differences, clinical and laboratory findings, diagnostic methods of diseases in this group.
15. To be able to describe the factors that play a role in the etiopathogenesis of neoplasia, be able to comprehend the cytopathology, genetics and physiopathology of cancer, possess knowledge about basic definitions.
16. To be able to sort and describe the common cancer types, their importance in terms of community health, diagnostic features and early diagnosis methods, to comprehend the importance of early diagnosis.
17. To be able to explain laboratory methods used in cancer diagnosis, be able to list microorganisms which may cause infections in immunosuppressive patients, be able to explain viruses with oncogenic potential and their contributions to pathogenesis.
18. To be able to explain the principles of cancer treatment, pharmacokinetics, pharmacodynamics, effects and complications of chemotherapeutics, to know surgical approaches used in cancer treatment, to explain treatment options with radiotherapy.
19. To be able to explain environmental factors that can affect health (air pollution, water pollution, wastes, etc.), to list chronic diseases and explain the ways of prevention, to be able to define the concept of early diagnosis and be able to list early diagnosis methods for chronic diseases, be able to describe nutrition and health relation.
20. To be able to know normal lymph node histology and basic reactive lymphadenopathy patterns.
21. To be able to identify the lymphadenitis and to list the lymphadenitis types.
22. To be able to list common causes of lymphadenopathy.
23. To be able to classify the lymph node and spleen tumors.
24. To be able to cite the causes that often lead to splenomegaly, to define hypersplenism and list its causes.
25. To be able to know and list the Hodgkin lymphoma etiopathogenesis, histological classification, clinical features and staging.
26. To be able to describe the basic classification of non-Hodgkin's lymphomas and the properties of different types.
27. To be able to distinguish Hodgkin and non-Hodgkin lymphomas.
28. To be able to define neoplasms with histiocytic and dendritic cells.
29. To be able to know the basic features of Langerhans cell histiocytosis.

**Skills:**

30. To be able to enumerate and apply the diagnostic methods used for the laboratory diagnosis of opportunistic fungal infections, be able to collect samples and apply planting techniques.

**Attitude:**

31. To be able to comprehend the importance of hematologic and oncologic diseases and to develop a viewpoint of preventive medicine, to be able to define physician identity, deontology, medical ethics, ethics-deontology-law relation

	<b>14.10.2024 MONDAY</b>	<b>15.10.2024 TUESDAY</b>	<b>16.10.2024 WEDNESDAY</b>	<b>17.10.2024 THURSDAY</b>	<b>18.10.2024 FRIDAY</b>
<b>08:30-09:15</b>		Free Run-Time	Exam Questions Analysis and Feedback Year 3-Coordinator	Free Run-Time	Free Run-Time
<b>09:30-10:15</b>		The nomenclature of tumors <b>Dr.O.Ertunç</b>	The etiopathogenesis of cancer <b>Dr.O.Ertunç</b>	Childhood cancer and predisposition to malignancy <b>Dr. G. Pınarlı</b>	The structure and function of bone marrow <b>Dr. M. Yağcı</b>
<b>10:30-11:15</b>		The nomenclature of tumors <b>Dr.O.Ertunç</b>	Tumor growth and heterogeneity <b>Dr.O.Ertunç</b>	The pathology of lymphadenopathy and splenomegaly <b>Dr. N. Akyürek</b>	The structure and function of bone marrow <b>Dr. M. Yağcı</b>
<b>11:30-12:15</b>		The etiopathogenesis of cancer <b>Dr.O.Ertunç</b>	The pathology of lymphadenopathy and splenomegaly <b>Dr. N. Akyürek</b>	The pathology of lymphadenopathy and splenomegaly <b>Dr. N. Akyürek</b>	The classification, pathophysiology and diagnosis of anemias <b>Dr. M. Yağcı</b>
<b>13:30-14:15</b>		Epidemiology of cancer <b>Dr. A. Uğraş Dikmen</b>	MEDICAL ENGLISH	Signs and symptoms of childhood cancer <b>Dr. Özge Vural</b>	General principles of cancer treatment, cytotoxic drugs and monoclonal antibodies <b>Dr. S. Barun</b>
<b>14:30-15:15</b>		Epidemiology of cancer <b>Dr. A. Uğraş Dikmen</b>	MEDICAL ENGLISH	Evidence based cancer genetics and cytogenetics <b>Dr. M. Ali Ergün</b>	General principles of cancer treatment, cytotoxic drugs and monoclonal antibodies <b>Dr. S. Barun</b>
<b>15:30-16:15</b>		Nuclear Medicine in Oncology and Hematology <b>Dr.L.Ö.Atay</b>	ELECTIVE COURSE	Evidence based cancer genetics and cytogenetics <b>Dr. M. Ali Ergün</b>	Tumor progression <b>Dr.O.Ertunç</b>
<b>16:30-17:15</b>		Free Run-Time	ELECTIVE COURSE	Free Run-Time	Metastasis <b>Dr.O.Ertunç</b>

	<b>21.10.2024 MONDAY</b>	<b>22.10.2024 TUESDAY</b>	<b>23.10.2024 WEDNESDAY</b>	<b>24.10.2024 THURSDAY</b>	<b>25.10.2024 FRIDAY</b>
<b>08:30-09:15</b>	Free Run-Time	Free Run-Time	Hemoglobinopathies <b>Dr. D. Aslan</b>	Free Run-Time	Free Run-Time
<b>09:30-10:15</b>	Tumor immunology <b>Dr. Ü. Bağrıaçık</b>	Radiologic imaging in hematopoietic system diseases <b>Dr. G. Erbaş</b>	Hemoglobinopathies <b>Dr. D. Aslan</b>	Viral infection agents in immunosuppressive patients 2: Retroviruses <b>Dr. S.Erganiş</b>	Etiology and epidemiology of cancer and principals of treatment <b>Dr.F.Gürler</b>
<b>10:30-11:15</b>	Tumor immunology <b>Dr. Ü. Bağrıaçık</b>	Approach to anemia during childhood <b>Dr. Ü. Koçak</b>	Myeloproliferative disorders <b>Dr. M. Yağcı</b>	Thrombosis during childhood <b>Dr. S. Kirkiz Kayalı</b>	Approach to patient with hemophilia and bleeding disorders in childhood <b>Dr. Z. Kaya</b>
<b>11:30-12:15</b>	Early Diagnosis and Cancer screening <b>Dr.G.Savaş</b>	Basic principles of transfusion <b>Dr. Ü. Koçak</b>	Lymphomas <b>Dr. M. Yağcı</b>	Immune deficiencies <b>Dr A.K.Baskın</b>	Approach to patient with hemophilia and bleeding disorders in childhood <b>Dr. Z. Kaya</b>
<b>13:30-14:15</b>	Oncogenic viruses <b>Dr.A.Kalkancı</b>	Microbiological approach to immunosuppressive patients <b>Dr. A. Kalkancı</b>	MEDICAL ENGLISH	General principles of cancer treatment, cytotoxic drugs and monoclonal antibodies <b>Dr. S. Barun</b>	Viral infection agents in immunosuppressive patients 1: Poliomaviruses and papilloma viruses <b>Dr. M. Yalınay</b>
<b>14:30-15:15</b>	The classification, pathophysiology and diagnosis of anemias <b>Dr. M. Yağcı</b>	Opportunistic yeast infections <b>Dr. A. Kalkancı</b>	MEDICAL ENGLISH	Drugs used in the treatment of anemia <b>Dr. S. Barun</b>	Free Run-Time
<b>15:30-16:15</b>	Hemolysis <b>Dr. M.Yağcı</b>	Opportunistic mold infections and pneumocystis <b>Dr. A. Kalkancı</b>	ELECTIVE COURSE	The epidemiology and etiology of childhood Cancers <b>Dr. Arzu Okur</b>	Free Run-Time
<b>16:30-17:15</b>	Free Run-Time	Free Run-Time	ELECTIVE COURSE	Free Run-Time	Free Run-Time

	28.10.2024 MONDAY	29.10.2024 TUESDAY	30.10.2024 WEDNESDAY	31.10.2024 THURSDAY	01.11.2024 FRIDAY
08:30-09:15	Free Run-Time	OCTOBER 29 REPUBLIC DAY	Free Run-Time	<b>MICROBIOLOGY LABORATORY</b>	Free Run-Time
09:30-10:15	Free Run-Time		Hemostasis and abnormalities Tendency to bleeding Tendency to thrombosis <b>Dr. Z.A. Yeğın</b>		Free Run-Time
10:30-11:15	Plasma cell disorders <b>Dr. Z.A. Yeğın</b>		Hemostasis and abnormalities Tendency to bleeding Tendency to thrombosis <b>Dr. Z.A. Yeğın</b>		Free Run-Time
11:30-12:15	Bone marrow failure <b>Dr. Z.A. Yeğın</b>		The metabolism and abnormalities of iron; Iron deficiency Iron overload <b>Dr. Z.A. Yeğın</b>		Free Run-Time
13:30-14:15	<b>PUBLIC HOLIDAY</b>	OCTOBER 29 REPUBLIC DAY	MEDICAL ENGLISH	<b>MICROBIOLOGY LABORATORY</b>	The metabolism and abnormalities of iron; Iron deficiency Iron overload <b>Dr. Z.A. Yeğın</b>
14:30-15:15			MEDICAL ENGLISH		Megaloblastic anemias <b>Dr. Z.A. Yeğın</b>
15:30-16:15			ELECTIVE COURSE		Megaloblastic anemias <b>Dr. Z.A. Yeğın</b>
16:30-17:15			ELECTIVE COURSE		Free Run-Time

	<b>04.11.2024 MONDAY</b>	<b>05.11.2024 TUESDAY</b>	<b>06.11.2024 WEDNESDAY</b>	<b>07.11.2024 THURSDAY</b>	<b>08.11.2024 FRIDAY</b>
<b>08:30- 09:15</b>	<b>YEAR II EXAM</b>	Free Run-Time	<b>YEAR III COURSE II EXAM</b>		
<b>09:30- 10:15</b>		Free Run-Time			
<b>10:30- 11:15</b>		Free Run-Time			
<b>11:30- 12:15</b>		Free Run-Time			
<b>13:30- 14:15</b>	Free Run-Time	Free Run-Time	MEDICAL ENGLISH		
<b>14:30- 15:15</b>	Free Run-Time	Free Run-Time	MEDICAL ENGLISH		
<b>15:30- 16:15</b>	Free Run-Time	Free Run-Time	ELECTIVE COURSE		
<b>16:30- 17:15</b>	Free Run-Time	Free Run-Time	ELECTIVE COURSE		

**EXAM**  
**November 06, 2023**  
**09:30 AM**