# GAZI UNIVERSITY FACULTY OF MEDICINE PHASE III 2019-2020

## NEOPLASIA AND HEMATOPOIETIC SYSTEM COURSE COMMITTEE

October 23-November 15, 2019,

**Examination:** November 18, 2019

Courses	Theoretical	Laboratory	Practice	Courses
INTERNAL MEDICINE (Hematology)	15			15
INTERNAL MEDICINE (Oncology)	2			2
PEDIATRICS (Hematology)	9			9
PEDIATRICS (Oncology)	2			2
PEDIATRICS(Allergy-Immunology)	1			1
MEDICAL PATHOLOGY	10			10
MEDICAL MICROBIOLOGY	7	1x8		15
MEDICAL PHARMACOLOGY	4			4
PUBLIC HEALTH	2			2
IMMUNOLOGY	2			2
MEDICAL GENETICS	2			2
NUCLEAR MEDICINE	1			1
RADIOLOGY	1			1
TOTAL	58	8		66
CLINICAL SKILLS EDUCATION (CSE)			137.4	4
Head and Neck Examination Skill  ELECTRIC COURSE.	437.0		1X4	4
ELECTIVE COURSE	4X2			8
MEDICAL ENGLISH	4X2			8
Questions Analysis of Last Committee Exam and Feedback	1			1
TOTAL				21
FREE RUN-TIME				48

Dean	Prof.Dr. Mehmet Sadık DEMİRSOY
Vice Dean	Prof.Dr. Taner AKAR
Vice Dean	Assoc.Prof.Dr. Sevil ÖZGER-İLHAN
Head Coordinator	Prof. Dr. Çiğdem ÖZER
Assistant Head Coordinator	Prof.Dr.İrem BUDAKOĞLU
Assistant Head Coordinator(Eng)	Prof.Dr. M.Ali ERGÜN
Phase III Coordinator	Assoc.Prof.Dr. İlyas OKUR
Assistant Phase III Coordinator (Eng)	Assoc.Prof.Dr. Ergin DİLEKÖZ
Assistant Phase III Coordinator (Eng)	Assoc.Prof.Dr. Pınar UYAR GÖÇÜN
Assistant Phase III Coordinator	Assoc.Prof.Dr. Hale Z. BATUR ÇAĞLAYAN
Assistant Phase III Coordinator	Asist. Dr. Salih TOPAL
Assistant Phase III Coordinator	Asist. Dr. N. Mutlu KARAKAŞ

Clinical Skill Education Coordinator	Assoc.Prof.Dr.Baybars ATAOĞLU
<b>Elective Course Coordinator</b>	Assoc.Prof.Dr. Ergin DİLEKÖZ
Medical English	Lecturer Sibel ÖZKIN

# MEMBERS OF COURSE COMMITTEE

INTERNAL MEDICINE (Hematology)	PEDIATRICS (Hematology)	PEDIATRICS (Oncology)	MEDICAL MICROBIOLOGY
Dr. Münci YAĞCI	Dr. Ülker KOÇAK	Dr. F.Güçlü PINARLI	Dr.Meltem
Dr. Z.Nur ÖZKURT	Dr. Deniz ARSLAN	Dr. Arzu OKUR	YALINAY
Dr. Z. Arzu YEĞİN	Dr. Zühre KAYA	PEDIATRICS (Allergy-Immunology) Dr.Arzu BAKIRTAŞ	Dr.Funda DOĞRUMAN-AL Dr. Ayşe KALKANCI
INTERNAL MEDICINE	RADİOLOGY	MEDICAL DATHOLOGY	PUBLIC HEALTH
(Oncology)			
	Dr. Gonca FRRAS	PATHOLOGY Dr. Gülen AKVOI	Dr. Asive HĞRAS
Dr.Ozan Yazıcı	Dr. Gonca ERBAŞ	Dr. Gülen AKYOL Dr. Nalan AKYÜREK	Dr. Asiye UĞRAŞ DİKMEN
	Dr. Gonca ERBAŞ  NUCLEAR  MEDICINE	Dr. Gülen AKYOL	,

#### AIM AND LEARNING OBJECTIVES OF COURSE

**Aim:** Following 16 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 cronic 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 chroic 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

	October 21, 2019 MONDAY	October 22, 2019 TUESDAY	October 23, 2019 WEDNESDAY	October 24, 2019 THURSDAY	October 25, 2019 FRIDAY
08:30-	PHASE III			Free Run-Time	Free Run-Time
09:20	COURSE I				
09:30-	PHASE III	PHASE III COURSE I	PHASE II COURSE 1	Approach to anemia during childhood	Free Run-Time
10:20	COURSE I	COMMITTEE EXAM	EXAM Free Run-Time	Dr. Ü. Koçak	
10:30- 11:20	PHASE III COURSE I			Approach to anemia during childhood	Megaloblastic anemias
				Dr. Ü. Koçak	Dr. Z.N. Özkurt
11:30-	PHASE III COURSE I			Questions Analysis of 1st Committee	Megaloblastic anemias
12:20				Exam and Feedback	Dr. Z.N. Özkurt
				Lecturer and coordinators	
13:30-	PHASE III	PHASE III	ELECTIVE	The structure and	
14:20	COURSE I	COURSE I	COURSE	function of bone marrow	The classification, pathophysiology and diagnosis of anemias
				Dr. M. Yağcı	Dr. M. Yağcı
14:30- 15:20	PHASE III COURSE I	PHASE III COURSE I	ELECTIVE	The structure and function of bone	Dr. M. Yağcı The classification, pathophysiology and
			ELECTIVE COURSE	The structure and	Dr. M. Yağcı The classification,
15:20 15:30-	COURSE I	COURSE I PHASE III		The structure and function of bone marrow  Dr. M. Yağcı  The metabolism and	Dr. M. Yağcı The classification, pathophysiology and diagnosis of anemias
15:20	COURSE I	COURSE I	COURSE	The structure and function of bone marrow  Dr. M. Yağcı	Dr. M. Yağcı The classification, pathophysiology and diagnosis of anemias Dr. M. Yağcı  Drugs used in the
15:20 15:30- 16:20	PHASE III COURSE I	PHASE III COURSE I	COURSE  MEDICAL  ENGLISH	The structure and function of bone marrow  Dr. M. Yağcı  The metabolism and abnormalities of iron; Iron deficiency Iron overload  Dr. Z.A. Yeğin	Dr. M. Yağcı  The classification, pathophysiology and diagnosis of anemias  Dr. M. Yağcı  Drugs used in the treatment of anemia  Dr. Z. Güney
15:20 15:30-	COURSE I	COURSE I PHASE III	COURSE	The structure and function of bone marrow  Dr. M. Yağcı  The metabolism and abnormalities of iron; Iron deficiency Iron overload	Dr. M. Yağcı The classification, pathophysiology and diagnosis of anemias Dr. M. Yağcı  Drugs used in the treatment of anemia

	October 28, 2019 MONDAY	October 29, 2019 TUESDAY	Octeober 30, 2019 WEDNESDAY	Octeober 31, 2019 THURSDAY	November 01, 2019 FRIDAY
08:30- 09:20	Free Run-Time		Free Run-Time	Free Run-Time	
09:30- 10:20	Free Run-Time	REPUBLIC DAY	Hemolysis Dr. M.Yağcı	Free Run-Time	CLINICAL SKILLS EDUCATION
10:30- 11:20	Free Run-Time	Free Run-Time	Hemostasis and abnormalities Tendency to bleeding Tendency to thrombosis  Dr. Z.A. Yeğin	Hemoglobinopathies Dr. D. Arslan	(CSE) (Head and Neck Examination Skill)
11:30- 12:20	Free Run-Time		Hemostasis and abnormalities Tendency to bleeding Tendency to thrombosis	Hemoglobinopathies  Dr. D. Arslan	
			Dr. Z.A. Yeğin		
13:30- 14:20	Free Run-Time	REPUBLIC	ELECTIVE COURSE	Epidemiology of cancer  Dr. A.Uğraş Dikmen	Oncogenic viruses Dr.A.Kalkancı
14:30- 15:20	Free Run-Time	DAY Free Run-Time	ELECTIVE COURSE	Epidemiology of cancer  Dr. A.Uğraş Dikmen	General principles of cancer treatment and cytotoxic drugs  Dr. Z. Güney
15:30- 16:20	Free Run-Time		MEDICAL ENGLISH	Free Run-Time	General principles of cancer treatment and cytotoxic drugs  Dr. Z. Güney
16:30- 17:20	Free Run-Time		MEDICAL ENGLISH	Free Run-Time	Free Run-Time

	November 04, 2019 MONDAY	November 05, 2019 TUESDAY	November 06, 2019 WEDNESDAY	November 07, 2019 THURSDAY	November 08, 2019 FRIDAY
08:30- 09:20	Free Run-Time	Evidence baed cancer genetics and cytogenetics  Dr. M. Ali Ergün	Free Run-Time	Free Run-Time	
09:30- 10:20	Free Run-Time	Evidence baed cancer genetics and cytogenetics  Dr. M. Ali Ergün	Tumor growth and heterogeneity  D. G. Akyol	Childhood Cancer and Predisposition To Malignancy  Dr. G. Pınarlı	PHASE I COURSE 1 EXAM
10:30- 11:20	The Nomenclature of Tumors  Dr. G. Akyol	The etiopathogenesis of cancer  D. G. Akyol	Tumor progression  D. G. Akyol	The epidemiology and etiology of childhood Cancers Dr. A. Okur	Free Run-Time
11:30- 12:20	The Nomenclature of Tumors  Dr. G. Akyol	The etiopathogenesis of cancer  D. G. Akyol	Metastasis Dr. G. Akyol	Signs and Symptoms of Childhood Cancer Dr. A. Okur	
13:30- 14:20	Tumor ımmunology Dr. Ü. Bağrıaçık	The pathology of lymphadenopathy and splenomegaly  Dr. N. Akyürek	ELECTIVE COURSE	Plasma cell disorders  Dr. Z.A. Yeğin	Free Run-Time
14:30- 15:20	Tumor ımmunology Dr. Ü. Bağrıaçık	The pathology of lymphadenopathy and splenomegaly  Dr. N. Akyürek	ELECTIVE COURSE	Bone marrow failure  Dr. Z.A. Yeğin	Free Run-Time
15:30- 16:20	Etiology and epidemiology of cancer and principals of treatment  Doç.Dr.O.Yazıcı	The pathology of lymphadenopathy and splenomegaly  Dr. N. Akyürek	MEDICAL ENGLISH	Approach to patient with hemophilia and bleeding disorders in childhood  Dr. Z. Kaya	Free Run-Time
16:30- 17:20	Early Diagnosis and Cancer screening  Doç.Dr.O.Yazıcı	Free Run-Time	MEDICAL ENGLISH	Approach to patient with hemophilia and bleeding disorders in childhood  Dr. Z. Kaya	Free Run-Time

	November 11, 2019 MONDAY	November 12, 2019 TUESDAY	November 13, 2019 WEDNESDAY	November 14, 2019 THURSDAY	November 15, 2019 FRIDAY
08:30- 09:20	Free Run-Time	Free Run-Time	Immune deficiencies Dr A.Bakırtaş		Free Run-Time
09:30- 10:20	Myeloproliferative disorders  Dr. M. Yağcı	Opportunistic mold infections and pneumocystis  Dr. A. Kalkancı	Microbiological approach to immunosupressive patients  Dr. A. Kalkancı		Free Run-Time
10:30- 11:20	Lymphomas  Dr. M. Yağcı	Opportunistic yeast infections  Dr. A. Kalkancı	Viral infection agents in immunosuppressive patients 1: Poliomaviruses and papilloma viruses Dr. M. Yalınay	LAB MICROBIOLOGY Diagnosis of the opportunistic fungal infections	Free Run-Time
11:30- 12:20	Targeted cancer treatment and monoclonal antibodies Dr.Z.Güney	Opportunistic yeast infections Dr. A. Kalkancı	Viral infection agents in immunosuppressive patients 2: Retroviruses Dr.F.Doğruman-Al		Free Run-Time
13:30-	Thrombosis during	Nuclear	ELECTIVE		Free Run-Time
14:20	childhood Dr. Ü.Koçak	Medicine in Oncology and Hematology Dr.L.Ö.Atay	COURSE	LAB	
14:30- 15:20	Basic principles of transfusion  Dr. Ü.Koçak	Radiologic imaging in hematopoietic system diseases  Dr. G. Erbaş	COURSE	MICROBIOLOGY Diagnosis of the opportunistic fungal infections	Free Run-Time
15:30- 16:20	Basic principles of transfusion  Dr. Ü.Koçak	Free Run-Time	MEDICAL ENGLISH		Free Run-Time
16:30- 17:20	Free Run-Time	Free Run-Time	MEDICAL ENGLISH		Free Run-Time

	November 18, 2019 MONDAY	November 19, 2019 TUESDAY	November 20, 2019 WEDNESDAY	November 21, 2019 THURSDAY	November 22, 2019 FRIDAY
08:30- 09:20		PHASE III COURSE III	PHASE III COURSE III	PHASE III COURSE III	PHASE III COURSE III
	PHASE III				
09:30-	COURSE II		PHASE III	PHASE III	PHASE III
10:20	EXAM	PHASE III	COURSE III	COURSE III	COURSE III
	9.30am	COURSE III			
10:30- 11:20		PHASE III COURSE III	PHASE III COURSE III	PHASE III COURSE III	PHASE III COURSE III
11:30-	_	PHASE III	PHASE III	PHASE III	PHASE III
12:20		COURSE III	COURSE III	COURSE III	COURSE III
13:30- 14:20	Free Run-Time	PHASE III COURSE III	ELECTIVE	PHASE III COURSE III	PHASE III COURSE III
11.20			COURSE		
14:30-	Free Run-Time	PHASE III	ELECTIVE	PHASE III	PHASE III
15:20		COURSE III	COURSE	COURSE III	COURSE III
15:30- 16:20	Free Run-Time	PHASE III COURSE III	MEDICAL ENGLISH	PHASE III COURSE III	PHASE III COURSE III
16:30- 17:20	Free Run-Time	PHASE III COURSE III	MEDICAL ENGLISH	PHASE III COURSE III	PHASE III COURSE III

EXAM November 18, 2019 09:30am