

# MARMARA UNIVERSITY – EASTERN MEDITERRANEAN UNIVERSITY INTERNATIONAL MEDICAL SCHOOL





# HEMATOPOIETIC SYSTEM AND RELATED DISORDERS YEAR 2 COURSE 3 December 19th, 2016 – February 17th, 2017

Coordinator of the Course 2.3			
Inst. Masoud AFSHANI			
Coordinator of Multidiciplinary Students' Lab Assist. Prof. Mümtaz GÜRAN	).	<b>Coordinator of Clinical Skill Lab.</b> Dr. Berfu Çerçi ÖNGÜN	
Cooordinator of Assessment Unite		Coordinator of ICS Res. Lab.	
Asisst. Prof., Mümtaz GÜRAN, Assist. Prof. Dr Mevhibe HOCAOĞLU, Asisst. Prof., İlke Çetin Akı		Assist. Prof. İlke Çetin Akçay	
Year 2	2 Coo	rdinators	
Assoc. Prof., Özgür Kasımay ÇAKIR			
Module Coordinator	Int	roduction to Clinician Skills(ICS) Coordinators	
Assoc. Prof., Özlem SARIKAYA Pro		rof., Sibel SAKARYA, Assoc. Prof., Pemra ÜNALAN	
Coordinator of Multidiciplinary Students' Lab.		Cooordinator of Assessment Unite	
Assoc. Prof., Betül KARADEMİR		Asisst. Prof., Cevdet NACAR	
Vice-Ch	ief Co	ordinators	
Assessment		Students' Affairs	
Asisst. Prof., Cevdet NACAR		Asisst. Prof., Can ERZİK	
Chief Coordinator		Coordinator of Medical Education Program	
Assoc. Prof., Hasan YANANLI		Evaluation and Development Commission	
		Prof., Berrak Ç. YEĞEN	
Educational Consultant			
Assoc. Prof., Mehmet Ali GÜLPINAR			
Dean (EMU)		Dean (MU)	
Prof., Nahide GÖKÇORA		Prof., Ömer GÜNAL	

# **LEARNING OUTCOMES / COMPETENCIES**

# A. Clinical Care: Qualified patient care and community oriented health care

- 1. Basic clinical skills
- 2. The organization and management of the patient and the patient care
- 3. The organization and the management of health care delivery services / system
- 4. Health promotion and disease prevention

# B. Medical Knowledge and Evidence-Based Medicine

- 5. Appropriate information retrieval and management skills
- 6. The integration of knowledge, critical thinking and evidence-based decision making
- 7. Scientific methods and basic research skills

# C. Professional Attitudes and Values

- 8. Communication skills and effective communication with patients / patient relatives
- 9. Interpersonal relationships and team working
- 10. Ethical and professional values, responsibilities
- 11. Individual, social and cultural values and responsibilities
- 12. Reflective practice and continuing development
- 13. Healthcare delivery systems, management and community oriented health care
- 14. Education and counseling

#### **PHASE-1 LEARNING OBJECTIVES**

- 1. Understanding the normal structures and functions of human body
- **2.** Correlating the basic concepts and principles to each other that define health and disease; applying basic concepts and principles to health and disease conditions
- **3.** Developing clinical problem solving, clinical reasoning and evaluation skills by integrating biomedical, clinical, social and humanities knowledge
- **4.** Gaining basic clinical skills by applications in simulated settings.
- **5.** Awareness of the professional values in health and disease processes (professional, individual, societal) and acquisition necessary related skills
- **6.** Evaluating critically and synthesizing all the medical evidence and perform respecting scientific, professional and ethical values
- Acquisition skills in reflective thinking and practicing, being open to continuous individual / professional development.

# PHASES – 1 THEMA/ORGAN SYSTEM-BASED COURSE PROGRAMS

Year 1, Course 1: Introduction to Cell and Cellular Replication Year 1, Course 2: Cellular Metabolism and Transport

Year 1, Course 3: Development and Organization of Human Body

Year 1, Course 4: Introduction to Nervous System and Human Behavior

Year 2, Course 1: Cell and Tissue Injury I

Year 2, Course 2: Cell and Tissue Injury II

# Year 2, Course 3: Hematopoietic System and Related Disorders

Year 2, Course 4: Musculoskeletal, Integumentary Systems and Related Disorders

Year 2, Course 5: Respiratory System and Related Disorders

Year 3, Course 1: Cardiovascular System and Related Disorders

Year 3, Course 2: Gastrointestinal System, Metabolism and Related Disorders

Year 3, Course 3: Nervous System and Related Disorders

Year 3, Course: Growth, Development, Mental Health and Related Disorders

Year 3, Course 5: Urinary and Reproductive System and Related Disorders

# **HEMATOPOIETIC SYSTEM AND RELATED DISORDERS**

# **AIM and LEARNING OBJECTIVES of COURSE**

**Aim:** At the end of this committee, second year students will gain knowledge about the development, structure and physiology of the hematopoietic system and pathogenesis of the disorders related to system. They will also gain knowledge about the signs and symptoms of hematopoietic disorders, related risk factors, prevention, diagnosis, and principles of treatment.

Learning Objectives: At the end of this committee, second year students will,

- 1. understand the development and histology of the lymphoid organs and blood
- 2. identify the structure and function of the hematopoietic system
- 3. define the pathologic processes in hematological disorders
- 4. gain knowledge about microorganisms affect the hematopoietic system and their pathogenesis in infectious process
- 5. gain knowledge about the risk groups, risk factors related to hematological disorders and preventive measures
- 6. gain knowledge about the signs and symptoms of these disorders
- 7. gain knowledge about the approach to diagnosis, and principles of treatment in hematological disorders
- 8. define the pharmacotherapy of hematological disorders
- **9.** acquire skills necessary to perform experimental applications.

#### **ASSESSMENT SYSTEM**

**Module examination:** Written exam at the end of the course and performance during the module **Practical examination:** Practical exams at the end of course

Course examination: Written exam at the end of

#### **PROGRAM EVALUATION**

Evaluation at the end of the course, is done both orally and by using structured evaluation forms

# **DEPARTMENTS PARTICIPATING IN COURSE-2.3**

- Anatomy
- Biochemistry
- Family Medicine
- Histology and Embryology
- Internal Medicine
- Medical Biology

- Medical Genetics
- Microbiology
- Pathology
- Pediatrics
- Pharmacology
- Physiology
- Public Health

# **LECTURERS / TUTORS**

Alper YILDIRIM, Assist. Professor of Physiology
Berfu Çerçi ÖNGÜN, Instructor of Anatomy
Burak AKSU, Asisst. Prof. of Microbiology
Can ERZİK, Assist. Professor of Medical Biology
Dilek AKALIN, Assoc. Professor of Histology-Embriology
Emine ÖZERİNÇ, Instructor of School of Foreign
Languages and Preparotary School
Goncagül HAKLAR, Professor of Biochemistry
Hızır KURTEL, Professor of Physiology
Kemal TÜRKÖZ, Assist. Professor of Pathology
İnci ALİCAN, Professor of Physiology
Masoud AFSHANI, Instructor of Histology-Embryology
Medine Gülçebi İDRİZOĞLU, , Assist. Professor of
Pharmacology
Mehmet AKMAN Assoc. Professor of Family Medicine

Osman KARA, Instructor of Internal Medicine
Ömer DOĞRU, Assist. Professor of Pediatrics
Önder ŞİRİKÇİ, Professor of Biochemistry
Pemra ÜNALAN, Assoc. Prof. Family Medicine
Pınar ATA, Assoc. Professor of Medical Genetics
Pınar AY, Assoc. Prof. Public Health
Saime BATIREL, Assist. Professor of Biochemistry
Serap ÇİFÇİLİ, Assoc. Prof. Family Medicine
Süheyla BOZKURT, Assoc. Professor of Pathology
Şerife Çelebi, Instructor of School of Foreign Languages
and Preparotary School
Uluhan SİLİ, Assist. Professor of Infectious Diseases
Ufuk HASDEMİR, Professor of Microbiology
Ümit ŞEHİRLİ, Professor of Anatomy
Zafer GÖREN, Professor of Pharmacology

Mümtaz GÜRAN, Assist. Professor of Microbiology Nilgün ÇERİKÇİOĞLU, Professor of Microbiology Nurver ÜLGER, Professor of Microbiology

# **READING / STUDYING MATERIALS**

- Manual of Pediatric Hematology & Oncology, Philip Lanzkowsky
- Nathan and Oski's Hematology of Infancy and Childhood, David G. Nathan, Stuart H. Orkin, A. Thomas Look, David Ginsburg.
- Manual of Clinical Hematology, Joseph J Mazza (Lippincott Williams & Wilkins).
- A Color Atlas of Comperative, Diagnostic and Experimental Hematology, C.A. Smith, et al., London, Wolfe, 1994.
- Wintrobe's Clinical Hematology, G. Richard Lee, et al., Philedelphia, Lea & Febiger, 2008.
- KanHastalıkları, B. Berkarda, Istanbul, «.U. BasımveYayınevi, 2003
- Principles of Physiology, Berne & Levy
- Textbook of Physiology, Guyton and Hall
- Clinical Diagnosis and Management by Laboratory Methods, John Bernard Henry (Saunders).
- Medical Microbiology; Patrick R Murray, Michael A. Pfaller, Ken S. Rosenthal.
- Jawetz, Melnick, and Adelberg's Medical Microbiology (Lange Basic Science).
- Basic & Clinical Pharmacology ISBN: 0071410929 Copyright year: 2004 Bertram G Katzung Ninth edition.
- Goodman & Gilman's The Pharmacological Basis of Therapeutics tenth edition (August 13, 2001) McGraw-Hill Professional ISBN-10: 0071354697.
- Aster JC Disease of White Blood Cells, Lymph nodes, spleen. In: Kumar V, Abbas AK, Fausto N(eds). Pathological basis of disease. 7th ed. China: Elsevier Saunders. 2005: 661-705.
- McKenna RW, Maiese RL, Croft SH. Disorders of bone marrow. In Sternberg SS(ed). Diagnostic surgical pathology. 3rd ed. Philadelphia: Lippincott Williams&Wilkins 1999:661-708.

SUMMARY OF THE COURSE 2.3					
Discipline	Lecture & Group Discussion	Multidisciplinary Lab. & Clinical Skills Lab. Practice	Total		
Anatomy	2	2	4		
Biochemistry	11	2	13		
Family Medicine	1		1		
Histology & Embryology	6	2	8		
Infectious Diseases	3		3		
Internal Medicine	21		21		
Medical Biology	2		2		
Medical Genetics	2		2		
Pathology	5	3	8		
Pediatrics	6		6		
Pharmacology	6		6		
Physiology	5	3	8		
Microbiology	7	2	9		
Public Health	2		2		
Subtotal	79	14	93		
PBL Module	8		8		
ICS-2: Basic Clinical Skills, Human in Medicine, Students Research Activity	24		24		
Communication in Turkish (Foreign Students)	26		26		
TOTAL	137	14	151		

	THEORETICAL AND PRACTICAL SESSIONS	LECTURER/TUTOR
	Week 1 (30-19 December 2016)	
Monday	19 December	
08:40-09:30		
09:40-10:30		
10:40-11:30	Introduction to the course and opening lecture	Inst. Masoud Afshani
11:40-12:30	Malaria and other infections due to blood and tissue protozoa	Dr. Nurver Ülger
13:40-14:30	Malaria and other infections due to blood and tissue protozoa	Dr. Nurver Ülger
14:40-15:30	Microbiology LAB: Diagnosis of hematopoietic system infections	Dr. Nurver Ülger
15:40-16-30	Microbiology LAB: Diagnosis of hematopoietic system infections	Dr. Nurver Ülger
16:40-17:30		
Tuesday	20 December	
08:40-09:30	Anatomy of lymphoid organs	Dr. Ümit Şehirli
09:40-10:30	Lymphoid circulation	Dr. Ümit Şehirli
10:40-11:30	Anatomy LAB: Anatomy of lymphoid organs	Dr. Ümit Şehirli, Dr. Berfu Çerçi Öngün
11:40-12:30	Anatomy LAB: Anatomy of lymphoid organs	Dr. Ümit Şehirli, Dr. Berfu Çerçi Öngün
13:40-14:30	Elective course	
14:40-15:30	Elective course	
15:40-16-30	Elective course	
16:40-17:30	Elective course	
Wednesday	21 December	
08:40-09:30		
09:40-10:30	Constituents of blood	Dr. Önder Şirikçi
10:40-11:30	Structure and function of white blood cells	Dr. Goncagül Haklar
11:40-12:30	Structure and function of white blood cells	Dr. Goncagül Haklar
13:40-14:30	Biochemistry of blood coagulation and fibrinolysis	Dr. Goncagül Haklar
14:40-15:30	Biochemistry of blood coagulation and fibrinolysis	Dr. Goncagül Haklar
15:40-16-30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
16:40-17:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç

Thursday	22 December	
08:40-09:30	Histology of blood	Dr. Dilek Akakın
09:40-10:30	Histology of blood	Dr. Dilek Akakın
10:40-11:30	Lymphoid organs	Dr. Dilek Akakın
11:40-12:30	Lymphoid organs	Dr. Dilek Akakın
13:40-14:30	Histology LAB: Blood and Lymphoid organs - Group A	Dr. Dilek Akakın, Inst.
		Masoud Afshani
14:40-15:30	Histology LAB: Blood and Lymphoid organs - Group A	Dr. Dilek Akakın, Inst. Masoud Afshani
15:40-16-30	Histology LAB: Blood and Lymphoid organs - Group B	Dr. Dilek Akakın, Inst.
13.40-10-30	ristology EAD. Blood and Lymphold organs Group B	Masoud Afshani
16:40-17:30	Histology LAB: Blood and Lymphoid organs - Group B	Dr. Dilek Akakın, Inst.
		Masoud Afshani
Friday	23 December	
08:40-09:30	White and red blood cells	Dr. Hızır Kurtel
09:40-10:30	White and red blood cells	Dr. Hızır Kurtel
10:40-11:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife
11.40 12.20	Communication in Toulish III (Foreign Chudorta)	Çelebi Sökmez
11:40-12:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
		ÇEIEDI SOKITIEZ
13:40-14:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife
	ί, ζ, ,	Çelebi Sökmez
14:40-15:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife
		Çelebi Sökmez
15:40-16-30		
16:40-17:30		
	Week 2 (26-30 December 2016)	
Monday	26 December	
08:40-09:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
09:40-10:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
10:40-11:30	Structure and function of erythrocytes	Dr. Saime Batırel
11:40-12:30	Structure and function of erythrocytes	Dr. Saime Batırel
13:40-14:30	<b>Biochemistry LAB:</b> Examination of red blood cells-Group A	Dr. Saime Batırel
14:40-15:30	<b>Biochemistry LAB:</b> Examination of red blood cells-Group A	Dr. Saime Batırel
15:40-16-30	<b>Biochemistry LAB:</b> Examination of red blood cells-Group B	Dr. Saime Batırel
16:40-17:30	<b>Biochemistry LAB:</b> Examination of red blood cells-Group B	Dr. Saime Batırel
Tuesday	27 December	
08:40-09:30	Structure and function of hemoglobin	Dr. Saime Batırel
09:40-10:30	Structure and function of hemoglobin	Dr. Saime Batırel

Biochemical aspect of anemia	Dr. Saime Batırel
Elective course	
Licetive course	
28 December	
Molecular basis of hemoglobinopathies	Dr. Can Erzik
DNA diagnosis of hemaglobinopathies	Dr. Can Erzik
	Dr. Mehmet Akman
Biological modifiers	Dr. Medine Gülçebi İdriz Oğlu
Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
29 December	
25 Becelinet	
Genetics of hematological disorders	Dr. Pınar Ata
-	Dr. Pınar Ata
Genetics of Heritatological disorders	DI. I mai 7.ca
Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
30 December	
	Molecular basis of hemoglobinopathies  DNA diagnosis of hemaglobinopathies  (Case) An adult patient with lymphadenopathies  Biological modifiers  Communication in Turkish III (Review Session / Foreign Students)  Communication in Turkish III (Review Session / Foreign Students)  29 December  Genetics of hematological disorders  Genetics of hematological disorders  Communication in Turkish III (Foreign Students)  Communication in Turkish III (Foreign Students)  Communication in Turkish III (Foreign Students)

	Week 3 (02-06 January 2017)	
Monday	02 January	
08:40-09:30		
09:40-10:30		
10:40-11:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
11:40-12:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
13:40-14:30	Systemic fungal infections	Dr. Nilgün Çerikçioğlu
14:40-15:30	Systemic fungal infections	Dr. Nilgün Çerikçioğlu
15:40-16-30		
16:40-17:30		
Tuesday	03 January	
08:40-09:30	Blood groups	Dr. Alper Yıldırım
09:40-10:30	Physiology LAB: Blood Physiology-Group A	Dr. Alper Yıldırım
10:40-11:30	Physiology LAB: Blood Physiology-Group A	Dr. Alper Yıldırım
11:40-12:30	Physiology LAB: Blood Physiology-Group A	Dr. Alper Yıldırım
13:40-14:30	Elective course	
14:40-15:30	Elective course	
15:40-16-30	Elective course	
16:40-17:30	Elective course	
Wednesday	04 January	
08:40-09:30	,	
09:40-10:30	Physiology LAB: Blood Physiology-Group B	Dr. Alper Yıldırım
10:40-11:30	Physiology LAB: Blood Physiology-Group B	Dr. Alper Yıldırım
11:40-12:30	Physiology LAB: Blood Physiology-Group B	Dr. Alper Yıldırım
13:40-14:30	Infections in immunocompromised host	Dr. Uluhan Sili
14:40-15:30	Sepsis	Dr. Uluhan Sili
15:40-16-30	Infectious mononucleosis	Dr. Uluhan Sili
16:40-17:30	Toxoplasmosis	Dr. Münevver Ufuk Över Hasdemir
Thursday	05 January	
08:40-09:30	Epidemiology of diseases spread by arthropod vectors	Dr. Nadiye Pınar Ay
09:40-10:30	Epidemiology of diseases spread by arthropod vectors	Dr. Nadiye Pınar Ay
10:40-11:30		
11:40-12:30		

13:40-14:30	Non-neoplastic disorders of lymph node and spleen	Dr. Süheyla Bozkurt
14:40-15:30	Neoplastic disorders of lymph node and spleen	Dr. Süheyla Bozkurt
15:40-16-30	Neoplastic disorders of lymph node and spleen	Dr. Süheyla Bozkurt
16:40-17:30		
Friday	06 January	
08:40-09:30	Hematopoiesis	Dr. Özlem Tuğçe Çilingir
09:40-10:30	Development of lymphoid organs	Dr. Özlem Tuğçe Çilingir
10:40-11:30	Pathology of bone marrow	Dr. Hüseyin Kemal Türköz
11:40-12:30	Pathology of bone marrow	Dr. Hüseyin Kemal Türköz
13:40-14:30	Pathology LAB: Pathology of bone marrow and lymphoid tissues	Dr. Hüseyin Kemal Türköz
14:40-15:30	Pathology LAB: Pathology of bone marrow and lymphoid tissues	Dr. Hüseyin Kemal Türköz
15:40-16-30	Pathology LAB: Pathology of bone marrow and lymphoid tissues	Dr. Hüseyin Kemal Türköz
16:40-17:30		
	Week 4 (09-13 January 2017)	
Monday	09 January	
08:40-09:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
09:40-10:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
10:40-11:30	PBL-MODULE 1	
11:40-12:30	PBL-MODULE 1	
13:40-14:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
14:40-15:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
15:40-16-30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
16:40-17:30		
Tuesday	10 January	
08:40-09:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
09:40-10:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
10:40-11:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
11:40-12:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili

13:40-14:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan Dr. Serap Çifçili
14:40-15:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan Dr. Serap Çifçili
15:40-16-30	Elective course	
16:40-17:30	Elective course	
Wednesday	11 January	
08:40-09:30	Introduction to hemolytic anemia's of and mechanism of hemolysis	Dr. Ömer Doğru
09:40-10:30	Hemolytic anemia's due to membrane and enzyme defects	Dr. Ömer Doğru
10:40-11:30	PBL-MODULE 2	
11:40-12:30	PBL-MODULE 2	
13:40-14:30	Sickle cell disease	Dr. Ömer Doğru
14:40-15:30	Thalassemias	Dr. Ömer Doğru
15:40-16-30	Introduction to hematology, stem cell, and hematopoiesis	Dr. Osman Kara
16:40-17:30	Classification and clinical approach to anemia	Dr. Osman Kara
Thursday	12 January	
08:40-09:30	Hemophilia	Dr. Ömer Doğru
09:40-10:30	Quantitative disorders of platelets	Dr. Ömer Doğru
10:40-11:30	Megaloblastic anemias	Dr. Osman Kara
11:40-12:30	Immune hemolitic anemias	Dr. Osman Kara
13:40-14:30	Non-immune acquired hemolytic anemias	Dr. Osman Kara
14:40-15:30	Transfusion medicine: Blood components	Dr. Osman Kara
15:40-16-30	Platelets: Coagulation and fibrinolysis	Dr. Yaşar İnci Alican
16:40-17:30	Platelets: Coagulation and fibrinolysis	Dr. Yaşar İnci Alican
Friday	13 January	
08:40-09:30	Multiple myeloma and other paraproteinemias	Dr. Osman Kara
09:40-10:30	Blood transfusion indications and complications	Dr. Osman Kara
10:40-11:30	Reading blood smear (slide show)	Dr. Osman Kara
11:40-12:30	Iron metabolism and iron deficiencies	Dr. Osman Kara
13:40-14:30	Aplastic anemia	Dr. Osman Kara

14:40-15:30	Vector borne diseases	Dr. Mehmet Burak Aksu
15:40-16-30	Vector borne diseases	Dr. Mehmet Burak Aksu
16:40-17:30		
	Week 5 (16-20 January 2017)	
Monday	16 January	
08:40-09:30		
09:40-10:30		
10:40-11:30	PBL-MODULE 3	
11:40-12:30	PBL-MODULE 3	
13:40-14:30	Thrombocytopenias and Immune Thrombocytopenic Purpura	Dr. Osman Kara
14:40-15:30	Myelodysplastic syndrome	Dr. Osman Kara
15:40-16-30	Acquired and congenital thrombophilias	Dr. Osman Kara
16:40-17:30		
Tuesday	17 January	
08:40-09:30		
09:40-10:30	Myeloproliferative disorders: CML, Polycythemia Vera, essential thrombocytosis and primary myelofibrosis	Dr. Osman Kara
10:40-11:30	Myeloproliferative disorders: CML, Polycythemia Vera, essential thrombocytosis and primary myelofibrosis	Dr. Osman Kara
11:40-12:30	Chronic lymphocytic leukemia's (CLL)	Dr. Osman Kara
13:40-14:30	Elective course	
14:40-15:30	Elective course	
15:40-16-30	Elective course	
16:40-17:30	Elective course	
Wednesday	18 January	
08:40-09:30	Acute leukemia's: Classification and molecular aspect	Dr. Osman Kara
09:40-10:30	Acute leukemia's: Classification and molecular aspect	Dr. Osman Kara
10:40-11:30	Hodgkin disease and non-Hodgkin lymphomas	Dr. Osman Kara
11:40-12:30	Hodgkin disease and non-Hodgkin lymphomas	Dr. Osman Kara
13:40-14:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan
14:40-15:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan
15:40-16-30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan
16:40-17:30	, 5 ,	

Thursday	19 January	
08:40-09:30	25 Surrout y	
09:40-10:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
10:40-11:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
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15:40-16-30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
16:40-17:30		
Friday	20 January	
08:40-09:30	LOC 2. USA Tallian and advanta Districts and advanta	D. C"l. D Ü l
09:40-10:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
10:40-11:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
11:40-12:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
13:40-14:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
14:40-15:30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
15:40-16-30	ICS-2: History Taking and Introduction to Physical Examination Course	Dr. Gülru Pemra Ünalan, Dr. Serap Çifçili
16:40-17:30		
D.C. and L.	Week 6 (23-27 January 2017)	
Monday	23 January	Furin Ö
08:40-09:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
09:40-10:30 10:40-11:30	Communication in Turkish III (Review Session / Foreign Students)  PBL-MODULE 4	Emine Özerinç
11:40-12:30	PBL-MODULE 4	
13:40-14:30	Pharmacotherapy of anemia	Dr. Zafer Gören
14:40-15:30	Pharmacotherapy of malaria	Dr. Zafer Gören
15:40-16-30	Hematopoietic agents: growth factors	Dr. Zafer Gören
16:40-17:30		

Tuesday	24 January	
08:40-09:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
09:40-10:30	Communication in Turkish III (Review Session / Foreign Students)	Emine Özerinç
10:40-11:30	Heavy metals and antagonists	Dr. Zafer Gören
11:40-12:30	Anticancer Chemotherapy	Dr. Zafer Gören
12:40 44:20		
13:40-14:30	Elective course	
14:40-15:30	Elective course	
15:40-16-30	Elective course	
16:40-17:30	Elective course	
Wednesday	25 January	
08:40-09:30		
09:40-10:30		
10:40-11:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
11:40-12:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
13:40-14:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
14:40-15:30	Communication in Turkish III (Foreign Students)	Emine Özerinç, Şerife Çelebi Sökmez
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16:40-17:30		
Thursday	26 January	
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Friday	27 January	
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10.40-17.30	Mark 7 (12 17 February 2017)	
Manday	Week 7 (13-17 February 2017)	
Monday 08:40-09:30	13 February	
09:40-10:30	PRACTICAL EXAM	
10:40-11:30	PRACTICAL EXAM	
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T	44 Fahrmann	
Tuesday	14 February	
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09:40-10:30	PRACTICAL EXAM	
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Wednesday 08:40-09:30	15 February	
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Friday	17 February	
08:40-09:30	Y2C3 THEORETICAL EXAM – AT 09:00	
09:40-10:30		
10:40-11:30		
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14:40-15:30		
15:40-16-30		