



**T.C.  
LOKMAN HEKİM UNIVERSITY  
FACULTY OF MEDICINE  
PHASE – IV  
2024 – 2025 ACADEMIC YEAR  
EDUCATION AND TEACHING GUIDE**



**T.R.**  
**LOKMAN HEKIM UNIVERSITY**  
**FACULTY OF MEDICINE ENGLISH PROGRAMME**

**PHASE IV COURSES and ECTS**

CODE	COMPULSORY COURSES	DURATION (DAYS)	THEORETI CAL LECTURES HOURS		ECTS
	Internal Medicine	35	90		9
	Infectious Diseases	10	25		3
	General Surgery and Pediatric Surgery	35	74		9
	Anesthesiology and Reanimation	10	11		3
	Cardiology	15	33		5
	Cardiovascular Surgery	5	17		2
	Neurology	15	24		5
	Neurosurgery	10	18		3
	Gynecology and Obstetrics	30	77		8
	Urology	15	23		5
ZORUNLU OLARAK ALINMASI GEREKEN AKTS TOPLAMI		180	392		52
CODE	ELECTIVE COURSES	T	P	C	ECTS
	Narrative Medicine I	2	0	2	4
	USMLE Preparation I	2	0	2	4
	Narrative Medicine II	2	0	2	4
	USMLE Preparation II	2	0	2	4
SEÇMELİ OLARAK ALINMASI GEREKEN AKTS TOPLAMI					8
III. YILDA ALINMASI GEREKEN TOPLAM AKTS					60

## PHASE IV OBJECTIVES AND LEARNING OUTCOMES

### Aim:

Phase IV students; in *Internal Medicine, Infectious Diseases, General Surgery and Pediatric Surgery, Anesthesiology and Reanimation, Cardiology, Cardiovascular Surgery, Neurology, Neurosurgery, Obstetrics and Gynecology and Urology* will take Clinical Courses and Practice Boards. At the end of these Clinical Courses and Practice Boards, phase IV students will have the necessary skills and knowledge to perform a general approach to the patient in diseases related to clinical branches, to diagnose or pre-diagnose common diseases, to treat patients at the primary care level and to perform emergency interventions, to explain the principles of preventive health services of diseases.

### Learning Objectives:

Phase IV students; in *Internal Medicine, Infectious Diseases, General Surgery and Pediatric Surgery, Anesthesiology and Reanimation, Cardiology, Cardiovascular Surgery, Neurology, Brain and Nerve Surgery, Obstetrics and Gynecology and Urology* after clinical courses related to these Departments / Sciences;

1. They take stories from patients,
2. Performs physical examinations,
3. In primary care, they order the necessary examinations of patients, interpret the results, and make preliminary diagnoses or diagnoses,
4. Distinguish patients to be followed up in primary care, plan their treatment,
5. Directs patients who need to be treated and followed up at a higher level or by a specialist,
6. It provides guidance for rare diseases,
7. Refer rare applications to an appropriate branch in a timely manner,
8. They will be able to define how to prevent common diseases in our country.



EXPLANATIONS and ABBREVIATIONS RELATED to LEARNING LEVELS	
<b>E</b>	Define the <b>emergency situation</b> , perform the first treatment, and refer to a specialist when necessary
<b>PreD</b>	To be able to make a <b>preliminary diagnosis</b> in non-emergency situations, perform the necessary preliminary procedures and refer to the specialist
<b>D</b>	Should be able to <b>diagnose</b> and have knowledge about treatment, perform the necessary preliminary procedures and refer to the specialist
<b>DT</b>	Should be able to <b>diagnose</b> and <b>treat</b>
<b>F</b>	Should be able to perform long-term <b>follow-up</b> and control.
<b>P</b>	Should be able to apply <b>protection</b> measures (primary, secondary and tertiary prevention, as appropriate)

SCORING FOR BASIC MEDICAL PRACTICES LEARNING LEVEL	
Learning Level	Description
<b>1</b>	Knows how the application is performed and explains the results to the patient and/or patient relatives
<b>2</b>	In case of an emergency, performs the application in accordance with the guideline / directive
<b>3</b>	Performs the application* in non-complex, common situations/cases
<b>4</b>	Performs the application* including complex situations/cases
* Conducts pre-assessment/evaluation, creates and implements the necessary plans, informs patients and their relatives/community about the process and its results	

## CLINICAL COURSE and PRACTICE BOARDS PROGRAM

<b><u>Coordinator</u></b>	<b>Assoc. Prof. Dr. Haydar CELASİN</b>
<b><u>Deputy Coordinators</u></b>	<b>Assoc. Prof. Dr. Halil AKIN Assoc. Prof. Dr. Cemile ÖZSÜREKÇİ</b>

CLINICAL COURSE and PRACTICE BOARDS (CCPB) GROUPS and RESPONSIBILITIES				
Groups	DEPARTMENTS	Clinical Course and Practice Board Responsible	Duration (Working Day)	Total Duration (Working Day)
Group-1	<i>Internal Medicine</i>	Prof. Dr. Muhammet GUVEN Assoc. Prof. Dr. Cemile Özsürekcı	35	45
	<i>Infectious Disease</i>	Prof. Dr. Mehmet DOĞANAY	10	
Group-2	<i>General Surgery and Pediatric Surgery</i>	Assoc. Prof. Dr. Haydar CELASİN	35	45
	<i>Anesthesiology and Reanimation</i>	Prof. Dr. Ülkü AYPAR	10	
Group-3	<i>Neurology</i>	Prof. Dr. Ceyla İRKEÇ Assis. Prof. Dr. Esra ERUYAR	15	45
	<i>Neurosurgery</i>	Prof. Dr. Cahit KURAL	10	
	<i>Cardiology</i>	Prof. Dr. Sercan OKUTUCU Assis. Prof. İlke Çelikkale	15	
	<i>Cardiovascular Surgery</i>	Prof. Dr. Necmettin ÇOLAK	5	
Group-4	<i>Urology</i>	Prof. Dr. Kürşad ZENGİN Prof. Dr. İsmail NALBANT	15	45
	<i>Gynecology and Obstetrics</i>	Prof. Dr. Hatice ÇELİK Assis. Prof. Dr. Meryem CEYHAN	30	
TOTAL			180	



## CLINICAL COURSE and PRACTICE BOARDS (CCPD) EDUCAEDUCATION and TEACHING ANNUAL PLAN

ACADEMIC CALENDAR and CLINICAL COURSE and PRACTICE BOARDS GROUPS			
SEMESTER	DATE	DURATION	GROUP
<b>1<sup>st</sup> Semester (FALL)</b>	September 09 <sup>th</sup> , 2024 November 08 <sup>th</sup> , 2024	45 days	1. (ENG)
	November 11 <sup>th</sup> , 2024 January 10 <sup>th</sup> , 2025	45 days	1. (ENG)
<b>Semester Break</b>	January 11 <sup>th</sup> , 2025 January 26 <sup>th</sup> , 2025	14 days	<b>Semester Break</b>
<b>2<sup>nd</sup> Semester (SPRING)</b>	January 27 <sup>th</sup> , 2025 March 28 <sup>th</sup> , 2025	45 days	1. (ENG)
	April 02 <sup>nd</sup> , 2025 May 30 <sup>th</sup> , 2025	45 days	1. (ENG)
<b>Make-up EXAMS</b>	June 16 <sup>th</sup> , 2025 June 20 <sup>th</sup> , 2025	5 days	Those who failed to make up



2024-2025 Eğitim ve Öğretim Yılı  
2024-2025 Education Period

Tıp Fakültesi (Türkçe-TR) Dönem IV Klinik Ders ve Uygulama Kurulu (KDUK) Programı  
Faculty of Medicine (ENGLISH-ENG) 4th Year Clinical Course and Practice Board (CCPB) Program

HAFTA WEEK	1. Grup (1st Group)		2. Grup	3. Grup	4. Grup	GÜNLER / DAYS								AY MONTH									
	TR (A)	ENG (E)	TR (B)	TR (C)	TR (D)	Pts/Mon	S/Tue	C/Wed	Per/Thur	C/Fri	SINAV EXAMS	Cts/Sat	Pa/Sun										
1.	İç Hastalıkları Enfeksiyon Hastalıkları	Internal Medicine Infectious Diseases	Genel Cerrahi Çocuk Cerrahisi Anesteziyoloji ve Reanimasyon	Nöroloji	Üroloji	9	10	11	12	13		14	15	Eylül-2024 September-2024									
2.													21		22								
3.												Üroloji	28		29								
4.							Beyin ve Sinir Cerrahisi	Kadın Hastalıkları ve Doğum	30	1	2	3	4		5	6	Ekim-2024 October-2024						
5.									7	8	9	10	11	NÖROLOJİ - BEYİN VE SINIR CERRAHİSİ	12	13							
6.									14	15	16	17	18		19	20							
7.							Kardiyoloji			21	22	23	24	25	GENEL CERRAHI - ÇOCUK CERRAHİSİ	26	27	Kasım-2024					
8.									28	29	30	31	1	KARDİYOLOJİ	2	3							
9.							Kalp ve Damar Cerrahisi			4	5	6	7	8	İÇ HASTALIKLARI - ENFEKSİYON HASTALIKLARI INTERNAL MEDICINE - INFECTIOUS DISEASES ANESTEZİYOLOJİ VE REANİMASYON KALP VE DAMAR CERRAHİSİ KADIN HASTALIKLARI VE DOĞUM	9	10						
10.	Üroloji	Urology	İç Hastalıkları Enfeksiyon Hastalıkları	Genel Cerrahi Çocuk Cerrahisi Anesteziyoloji ve Reanimasyon	Nöroloji	11	12		13	14	15		16	17	November-2024								
11.																	23	24					
12.																Üroloji UROLOGY	30	1					
13.						Kadın Hastalıkları ve Doğum	Gynecology and Obstetrics	İç Hastalıkları Enfeksiyon Hastalıkları	Çocuk Cerrahisi	Beyin ve Sinir Cerrahisi	2	3	4	5	6		7	8	Aralık-2024 December-2024				
14.																				14	15		
15.																		16		17	18	19	20
16.														Kardiyoloji	23	24	25	26	27	GENEL CERRAHI - ÇOCUK CERRAHİSİ	28	29	Ocak-2025
17.															30	31	1	2	3	KARDİYOLOJİ	4	5	
18.													Anesteziyoloji ve Reanimasyon	Kalp ve Damar Cerrahisi	6	7	8	9	10	İÇ HASTALIKLARI - ENFEKSİYON HASTALIKLARI ANESTEZİYOLOJİ VE REANİMASYON KALP VE DAMAR CERRAHİSİ KADIN HASTALIKLARI VE DOĞUM GYNECOLOGY and OBSTETRICS	11	12	
19.	Yarıyıl (Semester)									13	14	15	16	17		18	19	January-2025					
20.										20	21	22	23	24		25	26						
21.	Nöroloji Beyin ve Sinir Cerrahisi Kardiyoloji Kalp ve Damar Cerrahisi	Neurology Neurosurgery Cardiology Cardiovascular Surgery	Üroloji Kadın Hastalıkları ve Doğum	İç Hastalıkları Enfeksiyon Hastalıkları	Genel Cerrahi Çocuk Cerrahisi Anesteziyoloji ve Reanimasyon					27	28	29	30	31		1	2	Şubat-2025 February-2025					
22.															8	9							
23.														Üroloji	15	16							
24.											17	18	19	20	21		22	23	Mart-2025 March-2025				
25.											24	25	26	27	28	NÖROLOJİ - BEYİN VE SINIR CERRAHİSİ NEUROLOGY - NEUROSURGERY	1	2					
26.											3	4	5	6	7		8	9					
27.											10	11	12	13	14	GENEL CERRAHI - ÇOCUK CERRAHİSİ	15	16	Nisan-2025 April-2025				
28.											17	18	19	20	21	KARDİYOLOJİ KARDIOLOGY	22	23					
29.											24	25	26	27	28	İÇ HASTALIKLARI - ENFEKSİYON HASTALIKLARI ANESTEZİYOLOJİ VE REANİMASYON KALP VE DAMAR CERRAHİSİ KARDİYOVASKÜLER CERRAHİSİ KADIN HASTALIKLARI VE DOĞUM	29	30					
30.	Genel Cerrahi Çocuk Cerrahisi Anesteziyoloji ve Reanimasyon	General Surgery Pediatric Surgery Anesthesiology and Reanimation	Nöroloji Beyin ve Sinir Cerrahisi Kardiyoloji Kalp ve Damar Cerrahisi	Üroloji	İç Hastalıkları Enfeksiyon Hastalıkları	31	1	2	3	4		5	6	Mayıs-2025 May-2025									
31.																12	13						
32.															Üroloji	19	20						
33.											21	22	23	24	25		26	27	Mayıs-2025 May-2025				
34.											28	29	30	1	2	NÖROLOJİ - BEYİN VE SINIR CERRAHİSİ	3	4					
35.											5	6	7	8	9		10	11					
36.											12	13	14	15	16	GENEL CERRAHI - ÇOCUK CERRAHİSİ GENERAL SURGERY - PEDIATRIC SURGERY	17	18	Mayıs-2025 May-2025				
37.											19	20	21	22	23	KARDİYOLOJİ KARDIOLOGY	24	25					
38.											26	27	28	29	30	İÇ HASTALIKLARI - ENFEKSİYON HASTALIKLARI ANESTEZİYOLOJİ VE REANİMASYON ANESTHESIOLOGY and REANIMATION KALP VE DAMAR CERRAHİSİ KADIN HASTALIKLARI VE DOĞUM	31	1					

## CLINICAL THEORETICAL COURSE and PRACTICE METHODS

Clinical education of phase IV medical students includes theoretical courses and practical applications. The clinics' theoretical and practical applications are prepared per the "**National Core Education Program for Medical Education.**" The clinical course and practice board (CCPB) program include theoretical lectures, general bedside practical training (bedside rounds), case- based education, student case preparation and presentation, seminars, and a student polyclinic.

1. **Theoretical courses:** Lectures are given by faculty members,
2. **Case-based education:** Conducted under the supervision of faculty members.
3. **Student] outpatient clinic:** Patient outpatient clinic is held together with faculty members,
4. **General bedside rounds:** Bedside student rounds are conducted with the faculty member. Students are also encouraged to participate in regular clinical rounds undertaken by faculty members,
5. **Seminar:** Students may prepare seminars under the supervision of faculty members,
6. **Postgraduate education program planned at the clinic or hospital level (educational activities such as panel, conference, seminar, literature presentation, mortality hour, etc.):** Students are encouraged to participate in in- clinic or hospital-wide postgraduate education programs.
7. **Examination:** According to the Lokman Hekim University Faculty of Medicine Education and Examination Regulations, CCPB examinations at the end of the internship by the relevant departments consists of diagnostic (pre-evaluation) at the beginning of the CCPB, formative (interim evaluation) during the CCPB, theoretical exam and objective structured clinical exams at the end of the CCPB.
  - a. To be successful in the CCPB, the decision-maker assessment score must be at least 60.
  - b. The decision-maker assessment score is the sum of **the theoretical and objective structured clinical (practical)** examinations that cover the content of the CCPB training. The effect of each exam on the decision-maker assessment score is 50%, provided that at least 50 (fifty) is obtained from each exam. Theoretical exams must be taken. In the presence of an acceptable excuse, with the request of the departments and the decision of the faculty board of directors, structured oral exams are held if objective structured clinical exams cannot be held.
  - c. **Theoretical exam:** It refers to the written (theoretical) exam conducted to measure





knowledge at different levels. Theoretical exams are conducted through an electronic system to be determined by the faculty board of directors. The number of questions is determined to be at least 50 (fifty) and not less than the number of theoretical courses taught in the CCPB. At the end of the theoretical exams, it is obligatory to give information about the correct answers and explanations of the question. The contribution of the diagnostic (pre-assessment) exam/exams to the theoretical exam is 5% of the average of the scores obtained, the contribution of the formative (mid-term evaluation) exam/exams to the theoretical exam is 15% of the average of the scores obtained and 80% of the score obtained from the theoretical exam is summed up and the theoretical exam grade is calculated. If there is no diagnostic (pre-assessment) exam, 20% of the average of the scores obtained from the formative (midterm) exam(s) and 80% of the score obtained from the theoretical exam are added together, and the theoretical grade is calculated. Without a diagnostic (pre-assessment) and formative (mid-term evaluation) exam, the score obtained from the theoretical exam is 100%, and the theoretical exam grade is calculated. With the decision of the faculty board of directors, the weights of different exam types can be changed in calculating the internship board success grade to be announced at the beginning of the internship board. Diagnostic (preliminary evaluation) and formative (interim evaluation) exams are mandatory in internships that exceed one week.

- d. **Objective structured clinical (practice/practical) exam:** It refers to a valid measurement and evaluation method used to assess the student's readiness to apply the competencies related to the CCPB, such as communication, knowledge, technical skills, and clinical reasoning at the desired level expected from them during clinical practice.

# 1. INTERNAL MEDICINE

## **PURPOSE:**

This course aims to enable physicians in primary health care to approach the common symptoms, signs, and diseases related to internal medicine in a conscious and well-equipped manner. Physician candidates who complete this theoretical and practical clinical course will be able to make a preliminary diagnosis and/or diagnosis of diseases, treat and emergency interventions of these patients at the primary care level, and refer the patient to the relevant specialist when necessary. Will be able to follow up on the diseases planned to be treated by the specialist at the primary care level and will be able to apply prevention and preventive measures for necessary diseases.

## **LEARNING OBJECTIVES:**

1. Take a medical history from patients according to their complaints and conditions, perform the necessary physical examination, and differentiate patients who can be treated and followed up in primary care. Request the required tests to diagnose these patients and interpret the results.
2. Directs the patient to the appropriate specialty in cases requiring specialized knowledge and skills.
3. Defines emergencies related to internal diseases, applies emergency treatments if necessary, and refers the patient to the relevant specialist if necessary.
4. Follows the treatments planned by the specialist physicians in line with the patient's diagnosis, evaluates the adverse effects of the treatments, and refers the patient to the specialist when necessary.
5. Follow the side effects of the drugs used in treatment and changes in disease findings, decide on treatment changes when necessary, and refer the patient to the appropriate specialist.
6. Manages the measures and practices required for preventive health services.
7. Follows up on chronic diseases, interprets the results of the examinations requested during follow-up, and refers to the relevant specialist in case of medical necessity.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of internal medicine	3
Abdominal examination	4
Consciousness assessment	4
Rectal examination	3
Evaluation of general condition and vital signs	4
Cardiovascular system examination	4
Respiratory system examination	4
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of internal diseases	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to prepare fecal smear and make microscopic examination	3
To be able to evaluate direct radiographs in terms of internal diseases	3
To be able to take and evaluate ECG	3
To be able to perform fecal occult blood examination	4
To be able to measure and evaluate blood glucose with glucometer	4



To be able to measure and evaluate bleeding time	2
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
Ability to use and evaluate a peak-flow meter	3
To be able to make and evaluate peripheral smear	3
To be able to perform and evaluate complete urine analysis (including microscopic examination)	3
To be able to interpret the results of screening and diagnostic examinations for internal diseases	3
<b>Interventional and non-interventional applications</b>	
Manage forensic cases in terms of internal medicine	3
Airway application	3
To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4
Arterial blood gas taking	3
Balloon mask (ambu) use	4
Ability to open an intravenous line	3
Ability to apply defibrillation	4
Recognize/protect/transplant evidence in terms of internal diseases	2
Ability to intubate	3
To be able to evaluate Glasgow/AVPU coma scale	4
To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of internal diseases	4
Ability to make IM, IV, SC, ID injections	4
Ability to insert a urinary catheter	3
To be able to provide advanced life support	3
Suicide intervention	2
Ability to measure blood pressure	4
Tick extraction	3
To be able to do blood transfusion	3
Ability to take samples for culture	3
Ability to make enema	3



Minimental condition examination	3
To be able to apply nasogastric catheter	3
To be able to apply oxygen and nebul-inhaler therapy	4
To be able to apply and evaluate pulse oximetry	4
Providing protection and transportation in accordance with the cold chain	4
To be able to evaluate pulmonary function tests	3
To be able to apply basic life support	4
To be able to prepare the drugs to be applied correctly	3
<b>Preventive medicine and community medicine practices</b>	
Periodic health examinations for internal medicine (metabolic diseases, vaccination of risk groups, cancer screening)	4
To be able to take precautions related to the protection of the health of health workers	4
To be able to take preventive measures against healthcare-associated infections	3
<b>Principles and practices of scientific research (in terms of Internal Medicine)</b>	
To be able to compile scientific data and summarize them in tables and graphs,	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2
To be able to access current literature and read it critically	3
To be able to apply the principles of evidence-based medicine in clinical decision-making	3
<b>Healthfulness</b>	
Follow-up and periodic health examinations at different stages of life (adolescence, adulthood, old age)	4
Healthy eating	4

THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IMT1	Taking anamnesis and basic principles in internal medicine	DT-E-P-F	1
IMT2	Physical examination in internal medicine (Endocrinologic, Hematologic, Rheumatologic, Neurological)	4	1
IMT3	Respiratory System Examination	4	1
IMT4	Cardiovascular System Examination	4	1

THEORETICAL COURSES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IMT5	Gastrointestinal system examination	4	1
IMT6	Evaluation of history, examination, and diagnostic tests in the nephrologic patient	4	1
IMT7	Dehydration, acute kidney injury and crush syndrome	D-E-P	2
IMT8	Acid-base balance disorders	E	1
IMT9	Fluid and electrolyte balance disorder	D-E-P	1
IMT10	Nephrotic syndrome Acute glomerulonephritis	D-E	1
IMT11	Chronic glomerulonephritis	PreD	1
IMT12	Tubulointerstitial diseases	PreD	1
IMT13	Chronic kidney disease* Renal replacement therapies	D-E-P-F	2
IMT14	Hypothalamus-Pituitary axis	3	1
IMT15	Pituitary disorders Diabetes insipidus	PreD PreD	1
IMT16	Cushing's disease	PreD	1
IMT17	Obesity* Metabolic syndrome	D-P-F D-P-F	1
IMT18	Dyslipidemia	DT-P-F	1
IMT19	Hepatosteatosi	PreD	1
IMT20	Adrenocortical insufficiency	PreD-E	1
IMT21	Pheochromocytoma Paraganglioma Insulinoma and multiple endocrine neoplasms	PreD PreD PreD	1
IMT22	Congenital adrenal hyperplasia	PreD	1
IMT23	Hypothyroidism Goiter*	DT-F D-P-F	1
IMT24	Hyperthyroidism	D-E-F	1
IMT25	Thyroiditis	PreD	2
IMT26	Approach to thyroid nodules	PreD	1
IMT27	Parathyroid gland diseases; Hyperparathyroidism, Hypoparathyroidism Calcium Metabolism disorders;	PreD PreD DT-E-P-F	2

THEORETICAL COURSES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IMT28	Vitamin D deficiency Osteoporosis	DT-P-F PreD-P	1
IMT29	Diabetes mellitus Gestational diabetes	DT-P-F D-P-F	2
IMT30	Acute complications of diabetes Hypoglycemia* Chronic complications of diabetes	D-E E PreD-P-F	4
IMT31	Clinical anatomy of the gastrointestinal tract	3	1
IMT32	Gastro-esophageal reflux	DT-P-F	1
IMT33	Peptic diseases (ulcer, gastritis)*	DT-P-F	1
IMT34	Upper gastrointestinal bleeding*	D-E	1
IMT35	Acute pancreatitis Chronic pancreatitis	E PreD-P	1
IMT36	Gastrointestinal motility disorders Irritable bowel disease*	PreD PreD-P-F	1
IMT37	Inflammatory bowel disease	PreD-P	1
IMT38	Familial Mediterranean fever	PreD-P-F	1
IMT39	Malabsorption Malnutrition	PreD-P DT-P-F	1
IMT40	Acute hepatitis Chronic hepatitis	PreD-P	2
IMT41	Hepatic cirrhosis Hepatic coma Portal hypertension Wilson's Disease	PreD-P E PreD PreD	2
IMT42	Biliary tract and gallbladder diseases	PreD-P-E	1
IMT43	Primary biliary cirrhosis Primary sclerosing cholangitis	PreD	1
IMT44	Iron deficiency anemia* Megaloblastic anemia	DT-E-P-F DT-P-F	2
IMT45	Hemoglobinopathies	PreD-P	1
IDH46	Hemolytic anemia	PreD	1
IMT47	Bleeding disorders Bleeding diathesis and Hemophilias Vitamin K deficiency	PreD-P-F PreD E-P	1

THEORETICAL COURSES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IMT48	Thrombotic thrombocytopenic purpura Idiopathic thrombocytopenic purpura	PreD PreD	1
IMT49	Hemolytic uremic syndrome Henoch-Schönlein purpura	PreD PreD	1
IMT50	Disseminated intravascular coagulation	PreD-E	1
IMT51	Leukemias	PreD	1
IMT52	Lymphoproliferative diseases	PreD	1
IMT53	Myeloproliferative disorders Plasma Cell Diseases	PreD PreD	1
IMT54	Aplastic anemia Polycythemia	PreD D	1
IMT55	General approach to the patient with cancer: Clinical evaluation, diagnostic procedures, staging and treatment methods	PreD-E	1
IMT56	Oncologic emergencies and treatment approaches	E	1
IMT57	Chemotherapeutic drugs: Mechanisms of action, classification, side effects	2	1
IMT58	Targeted therapies in cancer and immunotherapy	2	1
IMT59	Common cancers (lung, breast, stomach and prostate)	PreD-E	1
IMT60	Principles of palliative care in cancer treatment and side effect management	3	1
IMT61	Geriatric syndromes	PreD-E-P-F	1
IMT62	Gut	PreD-P	1
IMT63	Seronegative Spondyloarthropathies	PreD	1
IMT64	Rheumatoid arthritis	PreD	1
IMT65	Sjögren's Syndrome	PreD	1
IMT66	Reynaud's Disease	PreD	2
IMT67	Systemic lupus erytomatosis	PreD	2
IMT68	Vasculitis and related diseases	PreD	2
IMT69	Scleroderma	PreD	1





<b>IMT70</b>	Polymyositis and dermatomyositis	<b>PreD</b>	<b>1</b>
<b>IMT71</b>	Heat stroke Frostbite (from cold) and frostbite	<b>D-E-F</b> <b>D-E-F</b>	<b>1</b>



THEORETICAL COURSES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IMT72	Approach to the patient in shock	PreD-E	1
IMT73	Metabolic comas	PreD-E	1
IMT74	Acute poisoning	PreD-E	3
TOTAL			90

EDUCATIONAL ACTIVITIES IN PRACTICE	
EDUCATION ACTIVITIES	LEARNING LEVEL
Ability to take a history	4
Case discussion	4
Evaluation of vital signs	4
Head and neck examination	4
Cardiovascular system examination	4
Respiratory system examination	4
Gastrointestinal system examination	4
Examination of skin, extremities, genitourinary system	4
Hematologic evaluation; peripheral smear and bone marrow*	3
Arterial blood gas collection and interpretation	3
Blood glucose measurement with glucometer	4
To be able to measure and evaluate bleeding time	4

\*Can be done in cases where suitable patients can be found

## 2. INFECTIOUS DISEASES

### PURPOSE:

With the "*Infectious Diseases Clinical Course and Practice Board*", phase IV students will be able to diagnose important and common infectious diseases that may require urgent intervention, pre- diagnosis or diagnosis of diseases, treatment and emergency interventions of these patients at the primary care level and send the patient to the specialist when necessary. Will be able to follow up on the infections planned to be treated by the primary care specialist, notify notifiable diseases, apply prevention measures of infectious diseases, take part in the fight against epidemics, make contact and carrier follow-up, and use prevention measures.

### LEARNING OBJECTIVES:

1. Takes history from patients, performs physical examination, can question the symptoms of infectious diseases during the examination, recognizes the symptoms of infectious diseases during the examination, requests the necessary tests in the first stage, interprets the results, treats simple problems, knows which patients should be evaluated by a specialist,
2. Identifies patients to be followed up in primary care, evaluates complete blood count results and peripheral blood smear, makes comments on the results, takes appropriate culture samples from patients for diagnosis,
3. Notifies patients for whom notification is mandatory,
4. Takes part in the fight against national or regional epidemics,
5. Evaluates the patient with fever and refers to the specialist, when necessary,
6. Evaluates the infections to be treated in severe and inpatient treatment institutions, perform first interventions, and make referrals, if necessary,
7. Knows the infections that can be prevented by vaccination and makes vaccine applications,
8. Knows the treatment principles and indications of antimicrobials to be used, especially in primary care, and evaluates the spectrum of action, routes of administration, and side effects of these drug groups.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of infectious diseases	3
Abdominal examination	4
Consciousness assessment	4
Rectal examination	3
Evaluation of general condition and vital signs	4
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of infectious diseases	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to apply the principles of working with biological material	4
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to prepare fecal smear and make microscopic examination	3
To be able to evaluate direct radiographs in terms of infectious diseases	3
To be able to take and evaluate ECG	3
To be able to perform fecal occult blood examination	4
To be able to measure and evaluate blood glucose with glucometer	4
To be able to measure and evaluate bleeding time	2
To be able to fill the request form for laboratory examination	4



To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	<b>4</b>
Ability to use a microscope	<b>4</b>
To be able to make and evaluate peripheral smear	<b>3</b>
To be able to perform and evaluate complete urine analysis (including microscopic examination)	<b>3</b>
To be able to interpret the results of screening and diagnostic examinations for infectious diseases	<b>3</b>
<b>Interventional and non-interventional applications</b>	
To be able to manage forensic cases in terms of infectious diseases	<b>3</b>
To be able to apply the principles of rational drug use	<b>4</b>
To be able to order rational laboratory and imaging examinations	<b>4</b>
Arterial blood gas taking	<b>3</b>
Ability to open an intravenous line	<b>3</b>
Recognize/protect/transplant evidence in terms of infectious diseases	<b>2</b>
To be able to take biological samples from the patient	<b>3</b>
To ensure that the patient is transported appropriately	<b>4</b>
To be able to refer the patient appropriately in terms of infectious diseases	<b>4</b>
Ability to make IM, IV, SC, ID injections	<b>4</b>
Ability to insert a urinary catheter	<b>3</b>
To provide advanced life support	<b>3</b>
Ability to measure blood pressure	<b>4</b>
Tick extraction	<b>3</b>
To be able to do blood transfusion	<b>3</b>
Ability to take samples for culture	<b>3</b>
Ability to make enema	<b>3</b>
Ability to perform lumbar puncture	<b>1</b>
Minimental condition examination	<b>3</b>
To be able to apply nasogastric catheter	<b>3</b>
Providing protection and transportation in accordance with the cold chain	<b>4</b>
To be able to apply basic life support	<b>4</b>
To be able to prepare the drugs to be applied correctly	<b>3</b>
<b>Preventive medicine and community medicine practices</b>	
To be able to provide immunization counseling	<b>4</b>



To be able to carry out immunization services	<b>4</b>
Periodic health examinations for infectious diseases (metabolic diseases, vaccination of risk groups, cancer screenings)	<b>4</b>
To be able to take precautions related to the protection of the health of health workers	<b>4</b>
To be able to take preventive measures against healthcare-associated infections	<b>3</b>
Taking measures to prevent infections in collective living spaces	<b>4</b>
To be able to fight against infectious diseases in society	<b>3</b>
<b>Principles and practices of scientific research (In terms of Infectious Diseases)</b>	
To be able to compile scientific data and summarize them in tables and graphs,	<b>3</b>
To be able to analyze scientific data with appropriate methods and interpret the results	<b>2</b>
To be able to plan research using scientific principles and methods	<b>2</b>
To be able to access current literature and read it critically	<b>3</b>
To be able to apply the principles of evidence-based medicine in clinical decision-making	<b>3</b>
<b>Healthfulness</b>	
Immunization in adults	<b>4</b>
Follow-up and periodic health examinations at different stages of life (adolescence, adulthood, old age)	<b>4</b>

THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
IDT1	Fever and approach to the febrile patient	E-DT	1
IDT2	Skin and soft tissue infections, abscesses*	DT-P-F	1
IDT3	Urinary tract infections*	DT-P	1
IDT4	Pneumonias: diagnostic and therapeutic approaches	E-DT-P	1
IDT5	Central nervous system infections; diagnosis and treatment approaches	E-P	1
IDT6	Sepsis	E-T	1
IDT7	Necrotizing soft tissue infections and gauze gangrene	E	1
IDT8	New and re-emerging infections (COVID-19)	E-P	1
IDT9	Prevention of healthcare-associated infections	E-P	3
IDT10	Infections caused by injuries and bites	DT-P	1



<b>IDT11</b>	Zoonoses Tularemia and CCHF	<b>E-D-P</b>	<b>1</b>
<b>IDT12</b>	Travel medicine and immunization	<b>D-P</b>	<b>1</b>
<b>IDT13</b>	Acute Gastroenteritis	<b>DT-E-P</b>	<b>1</b>
<b>IDT14</b>	Principles of antimicrobial therapy	<b>3</b>	<b>1</b>
<b>IDT15</b>	Antimicrobials and their clinical uses	<b>3</b>	<b>6</b>
<b>IDT16</b>	HIV/AIDS	<b>PreD-P</b>	<b>1</b>
<b>IDT17</b>	Brucellosis	<b>DT-P</b>	<b>1</b>
<b>IDT18</b>	Upper respiratory tract infections and influenza	<b>DT-P</b>	<b>1</b>
<b>TOTAL</b>			<b>25</b>

<b>EDUCATIONAL ACTIVITIES IN PRACTICE</b>	
<b>EDUCATION ACTIVITIES</b>	<b>LEARNING LEVEL</b>
Case discussion from history to treatment	<b>4</b>
Hand washing	<b>4</b>
Sampling for culture	<b>3</b>
To be able to provide decontamination, disinfection, sterilization, antisepsis	<b>3</b>
Use personal protective equipment	<b>3</b>
Smear preparation and microscopic examination of biological materials	<b>3</b>
Notification of infectious diseases	<b>4</b>

### 3. GENERAL SURGERY and PEDIATRIC SURGERY

#### **PURPOSE:**

With the "*General Surgery and Pediatric Surgery Clinical Course and Practice Boards*" 4th- year students will be able to take history, perform physical examination, request appropriate tests, and make a preliminary diagnosis in cases related to general surgery that they may encounter in primary health care services. They will be able to perform emergency intervention and treatment of surgical diseases and problems under current conditions and refer them to a higher level when necessary.

#### **LEARNING OBJECTIVES:**

1. Takes history and performs physical examination in cases related to general surgery and pediatric surgery,
2. Requests the necessary laboratory tests and selects imaging methods by combining the anamnesis and physical examination findings with the training received,
3. Interprets the results of examinations. Identifies emergency patients, initiates treatment and sends the necessary patients to a specialist or higher level,
4. Organizes the treatment and follow-up of patients who can be treated in primary care,
5. Carries out primary care and follow-up of patients who have undergone surgical operations, and refers them to a specialist, when necessary,
6. Sutures simple incisions. Performs minor surgical procedures (such as abscess drainage) when necessary,
7. Makes the necessary wound care and dressings for simple injuries,
8. Evaluate the risk factors that cause diseases related to general surgery, considering the individual's environment. Informs patients about prevention methods and precautions.





BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of general surgery and pediatric surgery	3
Abdominal examination	4
Consciousness assessment	4
Rectal examination	3
Evaluation of general condition and vital signs	4
Examination of the breast and axillary region	3
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of general surgery and pediatric surgery	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to evaluate direct radiographs in terms of general surgery and pediatric surgery	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
In terms of general surgery and pediatric surgery interpret the results of screening and diagnostic examinations	3
<b>Interventional and non-interventional applications</b>	
To be able to manage forensic cases in terms of general surgery and pediatric surgery	3



To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4
Evaluation of multiple trauma patients	3
Ability to open an intravenous line	3
To be able to recognize/protect/transplant evidence in terms of general surgery and pediatric surgery	2
Ability to open skin-soft tissue abscess	3
To be able to take measures to stop/limit external bleeding	3
Hand washing	4
To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of general surgery and pediatric surgery	4
Ability to make IM, IV, SC, ID injections	4
Ability to insert a urinary catheter	3
Ability to measure blood pressure	4
Ability to take samples for culture	3
Ability to make enema	3
To be able to apply nasogastric catheter	3
To be able to apply basic life support	4
To be able to prepare the drugs to be applied correctly	3
To be able to do side-wound care	3
Ability to suture and remove superficial sutures	4
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for general surgery and pediatric surgery (metabolic diseases, cancer screening)	4
To be able to teach breast self-examination	4
To be able to take precautions related to the protection of the health of health workers	4
To be able to take preventive measures against healthcare-associated infections	3
<b>Principles and practices of scientific research (in terms of General Surgery and Pediatric Surgery)</b>	
To be able to compile scientific data and summarize them in tables and graphs,	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2



To be able to access current literature and read it critically	<b>3</b>
To be able to apply the principles of evidence-based medicine in clinical decision-making	<b>3</b>
<b>Healthfulness</b>	
Follow-up and periodic health examinations at different stages of life (adolescence, adulthood, old age)	<b>4</b>

<b>THEORETICAL LECTURES</b>			
<b>LECTURE CODE</b>	<b>LECTURE TOPICS</b>	<b>LEARNING LEVEL</b>	<b>TIME</b>
<b>GST1</b>	Introduction to surgery and surgical examination	<b>3</b>	<b>1</b>
<b>GST2</b>	Surgical hand washing, surgical protection use of equipment	<b>3</b>	<b>1</b>
<b>GST3</b>	Asepsis, antisepsis, sterilization, disinfection	<b>3</b>	<b>1</b>
<b>GST4</b>	Intraabdominal infections and abscesses	<b>PreD-E</b>	<b>2</b>
<b>GST5</b>	Acute abdomen, peritonitis, acute appendicitis	<b>E-D-F</b>	<b>1</b>
<b>GST6</b>	Surgical soft tissue infections and treatments	<b>E-DT-P-F</b>	<b>1</b>
<b>GST7</b>	Wound healing, endocrine response to trauma metabolic response	<b>PreD-E</b>	<b>2</b>
<b>GST8</b>	Abdominal trauma, bleeding, shock, transfusion	<b>PreD-E</b>	<b>2</b>
<b>GST9</b>	Transfusion, use of blood and blood products and complications	<b>E-D</b>	<b>1</b>
<b>GST10</b>	Fluid electrolyte balance disorders treatment	<b>D-E-P</b>	<b>2</b>
<b>GST11</b>	Treatment of acid base balance disorders	<b>D-E-P</b>	<b>2</b>
<b>GST12</b>	Assessment of nutritional status and nutrition in surgery	<b>DT-P-F</b>	<b>2</b>
<b>GST13</b>	Benign surgical diseases of the colon, diverticular disease, volvulus	<b>PreD-P</b>	<b>2</b>
<b>GST14</b>	Colon polyps	<b>PreD-P</b>	<b>1</b>
<b>GST15</b>	Inflammatory bowel diseases	<b>PreD-E-F</b>	<b>1</b>
<b>GST16</b>	Upper gastrointestinal bleeding	<b>D-E</b>	<b>1</b>



<b>GST17</b>	Lower gastrointestinal bleeding	<b>D-E</b>	<b>1</b>
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<b>GST18</b>	Colorectal tumors	<b>PreD-P</b>	<b>2</b>
<b>GST19</b>	Anorectal benign diseases	<b>D-P-F</b>	<b>2</b>
<b>GST20</b>	Surgical diseases of the small intestine	<b>PreD-E</b>	<b>2</b>
<b>GST21</b>	Acute intestinal obstructions	<b>PreD-E</b>	<b>1</b>
<b>GST22</b>	Ileus	<b>PreD-E</b>	<b>1</b>
<b>GST23</b>	Benign diseases of the esophagus	<b>D-P</b>	<b>1</b>
<b>GST24</b>	Benign diseases of the stomach and duodenum	<b>DT-P-F</b>	<b>1</b>
<b>GST25</b>	Gastroesophageal reflux disease, hiatal hernia	<b>DT-P-F</b> <b>PreD-F</b>	<b>1</b>
<b>GST26</b>	Malignant diseases of the esophagus	<b>PreD-P</b>	<b>1</b>
<b>GST27</b>	Stomach cancer	<b>PreD-P</b>	<b>2</b>
<b>GST28</b>	Obesity and surgery	<b>D-P-F</b>	<b>1</b>
<b>GST29</b>	Abdominal wall hernias, Inguinal hernias	<b>E-D</b>	<b>2</b>
<b>GST30</b>	Benign surgical diseases of the liver and cysts	<b>PreD-D-P</b>	<b>1</b>
<b>GST31</b>	Primary and metastatic tumors of the liver	<b>PreD-D</b>	<b>1</b>
<b>GST32</b>	Gallbladder diseases	<b>PreD-E</b>	<b>1</b>
<b>GST33</b>	Extrahepatic biliary tract diseases	<b>PreD-E</b>	<b>1</b>
<b>GST34</b>	Obstructive jaundice	<b>PreD-E</b>	<b>1</b>
<b>GST35</b>	Benign diseases of the pancreas and neuroendocrine tumors	<b>PreD-E-P</b>	<b>1</b>
<b>GST36</b>	Pancreatic cancer	<b>PreD-E</b>	<b>1</b>
<b>GST37</b>	Organ transplantation and basic principles	<b>F</b>	<b>2</b>
<b>GST38</b>	Surgical diseases of the spleen	<b>PreD-E</b>	<b>2</b>
<b>GST39</b>	Surgical diseases of the thyroid gland	<b>D-F</b>	<b>2</b>
<b>GST40</b>	Surgical diseases of the parathyroid	<b>PreD</b>	<b>2</b>
<b>GST41</b>	Surgical diseases of the surrenal gland	<b>PreD</b>	<b>2</b>
<b>GST42</b>	Benign breast diseases and precancerous breast lesions	<b>PreD-P</b>	<b>2</b>
<b>GST43</b>	Breast cancer and surgery	<b>PreD-P</b>	<b>2</b>
<b>GST44</b>	Retroperitoneal tumors and malignant mesenchymal tumors	<b>PreD</b>	<b>2</b>
<b>GST45</b>	Pulmonary thromboembolism	<b>PreD-E</b>	<b>1</b>



<b>GST46</b>	Mesenteric vascular diseases, Mesenteric ischemia	<b>PreD-E</b>	<b>1</b>
<b>GST47</b>	Burns	<b>E-D-F</b>	<b>2</b>
<b>PST48</b>	Gastrointestinal congenital anomalies	<b>PreD</b>	<b>2</b>
<b>PST49</b>	Acute abdomen in children	<b>PreD-E</b>	<b>2</b>
<b>PST50</b>	Trauma in children	<b>PreD-E</b>	<b>2</b>
<b>TOTAL</b>			<b>74</b>

<b>EDUCATIONAL ACTIVITIES IN PRACTICE</b>	
<b>EDUCATION ACTIVITIES</b>	<b>LEARNING LEVEL</b>
Ability to take a history	<b>4</b>
Case discussion	<b>4</b>
Evaluation of vital signs	<b>4</b>
Head and neck examination	<b>4</b>
Abdominal examination	<b>4</b>
Wound care and dressing	<b>3</b>

## 4. ANESTHESIOLOGY and REANIMATION

### PURPOSE:

With the "Anesthesiology and Reanimation Clinical Course and Practice Board", phase IV students will have knowledge about anesthesia and intensive care practices and will be able to make a preliminary diagnosis or diagnosis of critical illnesses that require rapid intervention. They will learn the basics of anesthesia methods, properties of drugs used in anesthesia, critical illness and critical patient care.

### LEARNING OBJECTIVES:

1. Makes the definition of anesthesia,
2. Explains the indications for anesthesia and ways of giving anesthesia,
3. Can diagnose laryngeal spasm and perform first intervention,
4. Explain the pharmacological properties of inhalation anesthetics,
5. Explains the pharmacological properties of local anesthetics,
6. Diagnoses a patient with respiratory failure,
7. Explains and interprets the properties of oxygen uptake and transport, oxyhemoglobin dissociation curve,
8. Explains the indications and application methods of oxygen therapy,
9. Defines the concepts of death and brain death,
10. Explain the definition and indications of palliative care.

BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Consciousness assessment	4



Evaluation of general condition and vital signs	4
Cardiovascular system examination	4
Respiratory system examination	4
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of anesthesiology and reanimation	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to evaluate direct radiographs in terms of anesthesiology and reanimation	3
To be able to take and evaluate ECG	3
To be able to measure and evaluate blood glucose with glucometer	4
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
Ability to use and evaluate a peak-flow meter	3
To be able to interpret the results of screening and diagnostic examinations in terms of anesthesiology and reanimation	3
<b>Interventional and non-interventional applications</b>	
Airway application	3
To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4
Arterial blood gas taking	3
Balloon mask (ambu) use	4
Evaluation of multiple trauma patients	3
Ability to open an intravenous line	3
Ability to apply defibrillation	4





Ability to intubate	3
To be able to evaluate Glasgow/AVPU coma scale	4
To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of anesthesiology and reanimation	4
Ability to make IM, IV, SC, ID injections	4
Ability to insert a urinary catheter	3
To be able to provide advanced life support	3
Ability to measure blood pressure	4
To be able to do blood transfusion	3
Capillary blood sampling	4
Ability to make enema	3
Minimetal condition examination	3
To be able to apply nasogastric catheter	3
To be able to apply oxygen and nebul-inhaler therapy	4
To be able to apply and evaluate pulse oximetry	4
Providing protection and transportation in accordance with the cold chain	4
To be able to evaluate pulmonary function tests	3
To be able to apply basic life support	4
To be able to prepare the drugs to be applied correctly	3
<b>Preventive medicine and community medicine practices</b>	
To be able to take precautions related to the protection of the health of workers	4
To be able to take preventive measures against healthcare-associated infections	3
<b>Principles and practices of scientific research (in terms of Anesthesiology and Reanimation)</b>	
To be able to compile scientific data and summarize them in tables and graphs	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2
To be able to access current literature and read it critically	3
To be able to apply the principles of evidence-based medicine in clinical decision-making	3



THEORETICAL COURSES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
ART1	Basic overview of anesthesia	PreD	1
ART2	Oxygen transport and oxygen therapy	D	1
ART3	Ensuring airway patency	D	1
ART4	Ways of administering anesthesia	PreD	1
ART5	Inhalation anesthetics	PreD	1
ART6	Local anesthetics	PreD	1
ART7	Laryngeal obstruction	E	1
ART8	Palliative care	PreD	1
ART9	Respiratory failure	E	1
ART10	Brain death and organ donation	PreD	1
ART11	Cardiopulmonary resuscitation	3	1
TOTAL			11

EDUCATIONAL ACTIVITIES IN PRACTICE	
EDUCATION ACTIVITIES	LEARNING LEVEL
Vascular access and patient monitoring	2
Behavior and sterilization in the operating room	3
Introduction of devices and medicines used for emergency intervention	2
Introducing intensive care and patient monitoring	2

## 5. CARDIOLOGY

### PURPOSE:

With the "*Cardiology Clinical Course and Practice Board*", phase IV students will gain the ability to take the history of patients with essential and common cardiovascular diseases that may require urgent intervention, to perform physical examination, to request the necessary tests for diagnosis and preliminary diagnosis in primary care, to make differential diagnosis and diagnosis, to treat and emergency interventions of these patients at the primary level, and to send the patient to the next level by providing appropriate conditions and conditions when necessary.

### LEARNING OBJECTIVES:

1. Explains the importance and risk factors of cardiovascular diseases for public health, informs and guides patients correctly in prevention and treatment,
2. Explain the clinical features of cardiovascular diseases and principles of clinical approach,
3. Takes history from the patient with cardiovascular system complaints and performs physical examination of the cardiovascular system,
4. Plans and interprets laboratory tests that will guide diagnosis and treatment at the primary care level based on anamnesis and examination findings,
5. Identifies urgent cardiovascular system diseases, treats them at the primary care level and refers them to a specialist physician under appropriate conditions,
6. Identify patients who need cardiac rehabilitation and refer them to a specialist,
7. Explain the mechanisms of action, indications, contraindications, and interactions of drugs used to treat cardiovascular diseases.

BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
Story retrieval	
To be able to take general and problem- oriented history	4
To be able to evaluate mental status	3



<b>Physical examination for the general problem</b>	
Forensic case examination in terms of cardiology	<b>3</b>
Consciousness assessment	<b>4</b>
Evaluation of general condition and vital signs	<b>4</b>
Cardiovascular system examination	<b>4</b>
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	<b>4</b>
To be able to prepare an epicrisis	<b>4</b>
To be able to prepare health reports in accordance with current legislation	<b>3</b>
To be able to prepare a patient file	<b>4</b>
Ability to issue a death certificate	<b>3</b>
Ability to issue a prescription	<b>4</b>
To be able to prepare a refusal of treatment document in terms of cardiology	<b>4</b>
Reporting and reporting legally notifiable diseases and conditions	<b>4</b>
<b>Laboratory tests and other related procedures</b>	
To be able to evaluate direct radiographs in terms of cardiology	<b>3</b>
To be able to take and evaluate ECG	<b>3</b>
To be able to fill the request form for laboratory examination	<b>4</b>
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	<b>4</b>
To be able to interpret the results of screening and diagnostic examinations in terms of cardiology	<b>3</b>
<b>Interventional and non-interventional applications</b>	
Manage forensic cases in terms of cardiology	<b>3</b>
Airway application	<b>3</b>
To be able to apply the principles of rational drug use	<b>4</b>
To be able to order rational laboratory and imaging examinations	<b>4</b>
Arterial blood gas taking	<b>3</b>
Balloon mask (ambu) use	<b>4</b>
Ability to open an intravenous line	<b>3</b>
Ability to apply defibrillation	<b>4</b>
Recognizing/protecting/transferring evidence in terms of cardiology	<b>2</b>



To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of cardiology	4
Ability to make IM, IV, SC, ID injections	4
To be able to provide advanced life support	3
Ability to measure blood pressure	4
Ability to take samples for culture	3
To be able to perform pericardiocentesis	1
To be able to apply and evaluate pulse oximetry	4
Providing protection and transportation in accordance with the cold chain	4
To be able to evaluate pulmonary function tests	3
To be able to apply basic life support	4
To be able to prepare the drugs to be applied correctly	3
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for cardiology	4
To be able to take precautions related to the protection of the health of health workers	4
<b>Principles and practices of scientific research (in terms of Cardiology)</b>	
To be able to compile scientific data and summarize them in tables and graphs	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2
To be able to access current literature and read it critically	3
To be able to apply the principles of evidence-based medicine in clinical decision-making	3

THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
CT1	History taking and cardiovascular system examination	4	2
CT2	Approach to chest pain	4	2
CT3	Basic electrocardiography and coronary artery Electrocardiography in diseases	3	3



THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
CT4	Laboratory and imaging in cardiology methods	D-E-F	2
CT5	Chronic coronary artery disease Acute coronary syndrome	PreD-P-F D-E-P	3
CT6	Endocarditis	PreD-P	2
CT7	Myocarditis and Cardiomyopathy	PreD	2
CT8	Heart valve disease	PreD-P	3
CT9	Heart rhythm disorder	D-E-F	1
CT10	Heart failure	D-E-P-F	3
CT11	Cardiogenic shock Cardio-pulmonary arrest* Syncope and sudden death	PreD-E PreD-E PreD-E-F	3
CT12	Essential hypertension and secondary hypertension	DT-E-P-F	3
CT13	Pericardial diseases	PreD	2
CT14	Dyslipidemias	DT-F	2
TOTAL			33

EDUCATIONAL ACTIVITIES IN PRACTICE	
EDUCATION ACTIVITIES	LEARNING LEVEL
History taking from patients	4
Case discussion	4
ECG, ECHO evaluation	3
Interpretation of diagnostic test results	3
Interpretation of radiologic tests used in cardiology	2

## 6. CARDIOVASCULAR SURGERY

### PURPOSE:

Phase IV students with "*Cardiovascular Surgery Clinical Course and Practice Board*", for important and common cardiovascular diseases that may require emergency intervention; taking history from patients, performing physical examination, requesting the necessary examinations for diagnosis and preliminary diagnosis in primary care, gaining the ability to make differential diagnosis and diagnosis, will be able to treat and emergency interventions of these patients at the primary level, and if necessary, will have the knowledge and skills to send the patient to the next level by providing appropriate conditions and conditions.

### LEARNING OBJECTIVES:

1. Takes history from patients with cardiovascular system complaints and performs physical examination,
2. Recognize cardiovascular diseases,
3. Diagnoses arterial, venous and lymphatic vascular diseases and vascular anomalies (tumors and malformations),
4. Performs and directs the first intervention of emergency cardiac and vascular diseases,
5. Recognizes congenital surgical heart diseases and guides the patient,
6. Performs follow-up (antithrombotic therapy, etc.) of patients undergoing cardiac and vascular surgery,
7. Explain which patients should be transferred to the surgical intervention center as soon as possible, inform the patient's relatives, and ensure that the patients are transferred under appropriate conditions.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of cardiovascular surgery	3
Consciousness assessment	4
Evaluation of general condition and vital signs	4
Cardiovascular system examination	4
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of cardiovascular surgery	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to evaluate direct radiographs in terms of cardiovascular surgery	3
To be able to take and evaluate ECG	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
To be able to interpret the results of screening and diagnostic examinations for cardiovascular surgery	3
<b>Interventional and non-interventional applications</b>	
Manage forensic cases in terms of cardiovascular surgery	3
Airway application	3





To be able to apply the principles of rational drug use	<b>4</b>
To be able to order rational laboratory and imaging examinations	<b>4</b>
Arterial blood gas taking	<b>3</b>



Balloon mask (ambu) use	4
Ability to open an intravenous line	3
Ability to apply defibrillation	4
Recognize/protect/transplant evidence in terms of cardiovascular surgery	2
To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of cardiovascular surgery	4
Ability to make IM, IV, SC, ID injections	4
To provide advanced life support	3
Ability to measure blood pressure	4
Ability to take samples for culture	3
To be able to perform pericardiocentesis	1
To be able to apply and evaluate pulse oximetry	4
Providing protection and transportation in accordance with the cold chain	4
To be able to evaluate pulmonary function tests	3
To be able to apply basic life support	4
To be able to prepare the drugs to be applied correctly	3
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for cardiovascular surgery	4
To be able to take precautions related to the protection of the health of health workers	4
<b>Principles and practices of scientific research (in terms of Cardiovascular Surgery)</b>	
To be able to compile scientific data and summarize them in tables and graphs	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2
To be able to access current literature and read it critically	3
To be able to apply the principles of evidence-based medicine in clinical decision-making	3



THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
KVST1	Surgical approach in cardiovascular diseases	PreD-E	2
KVST2	Peripheral arterial diseases	PreD-E	2
KVST3	Venous and lymphatic system diseases (Thrombophlebitis and lymphedema)	PreD-P-F	1
KVST4	Aortic aneurysm and aortic dissection	E-PreD	2
KVSD5	Deep vein thrombosis	PreD-P-F	1
KVST6	Surgery in coronary artery disease	PreD-P-F	2
KSVT7	Surgery in valvular diseases	PreD-P-F	2
KVST8	Carotid artery diseases	PreD-P-F	2
KSVT9	Advanced heart failure support therapy and ECMO	PreD-P-F	1
KVST10	Surgical treatment of congenital heart disease	PreD-P-F	2
TOTAL			17

EDUCATIONAL ACTIVITIES IN PRACTICE	
EDUCATION ACTIVITIES	LEARNING LEVEL
History taking from patients	4
Case discussion	4
Evaluation of diagnostic test results	3
Radiologic tests and interpretation in cardiac surgery	2
Surgical wound care	3

## 7. NEUROLOGY

### PURPOSE:

Phase IV students will gain the ability to make an ethical and conscious approach in terms of preliminary diagnosis, differential diagnosis, and preventive medicine practices in neurological problems frequently encountered in primary health care within the framework of the “**National Core Education Program**” for pre-graduate medical education in "*Neurology Clinical Course and Practice Board*". They will have the knowledge and skills to know the etiology, diagnosis, and treatment of common diseases in the field of neurology, determine emergencies, make the first treatment, and refer to a specialist when necessary.

### LEARNING OBJECTIVES:

1. Takes medical history from patients presenting with neurologic complaints and performs neurologic examination,
2. Defines neurological emergencies,
3. Knows diagnostic tests that can be applied to patients presenting with neurological complaints, selects diagnostic tests that can be used in primary care and makes a preliminary diagnosis,
4. Diagnoses and treats neurological diseases at the primary care level in patients presenting with neurological complaints,
5. Evaluates the patient with neurological complaints, decide to refer them to appropriate centers when necessary and direct them under proper conditions,
6. Explains the common health problems and causes of neurology fields, taking into account the interaction of the individual with the environment,
7. Explain the diagnosis and treatment approaches of neurologic diseases,
8. Explain the practices and precautions for protecting health on an individual and community basis in the fields of neurology

BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of neurology	3
Consciousness assessment	4
Evaluation of general condition and vital signs	4
Ophthalmologic examination	2
Neurological examination	3
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of neurology	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to evaluate direct radiographs in terms of neurology	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
To be able to interpret the results of screening and diagnostic examinations In terms of neurology	3
<b>Interventional and non-interventional applications</b>	
To be able to manage forensic cases in terms of neurology	3
To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4
Ability to open an intravenous line	3

Recognizing/protecting/transferring evidence in terms of neurology	<b>2</b>
To be able to evaluate Glasgow/AVPU coma scale	<b>4</b>
To be able to take biological samples from the patient	<b>3</b>
To ensure that the patient is transported appropriately	<b>4</b>
To be able to refer the patient appropriately in terms of neurology	<b>4</b>
Minimental condition examination	<b>3</b>
To be able to prepare the drugs to be applied correctly	<b>3</b>
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for neurology	<b>4</b>
To be able to take precautions related to the protection of the health of health workers	<b>4</b>
<b>Principles and practices of scientific research (in terms of Neurology)</b>	
To be able to compile scientific data and summarize them in tables and graphs	<b>3</b>
To be able to analyze scientific data with appropriate methods and interpret the results	<b>2</b>
To be able to plan research using scientific principles and methods	<b>2</b>
To be able to access current literature and read it critically	<b>3</b>
To be able to apply the principles of evidence-based medicine in clinical decision-making	<b>3</b>

THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
NT1	Symptoms and signs seen in neurological diseases, Classification of neurological diseases, Neurological examination and taking anamnesis	PreD-F	2
NT2	Neurological Emergencies (Cerebrovascular diseases, Status Epilepticus, Encephalitis)	PreD	1
NT3	Headache (Migraine, tension-type headaches, secondary, primary headache syndromes)	PreD-D-F	2
NT4	Dizziness and dizziness	PreD	1
NT5	Transient ischemic attack and stroke	E-P-F	2



<b>NT6</b>	Facial paralysis	<b>D-E</b>	<b>1</b>
<b>NT7</b>	Epilepsy and status epilepticus	<b>PreD-P-F</b>	<b>1</b>
<b>NT8</b>	Peripheral neuropathies	<b>PreD</b>	<b>1</b>
<b>NT9</b>	Polyneuropathies, Gullian Barre syndrome	<b>PreD</b>	<b>1</b>
<b>NT10</b>	Double vision and pupillary abnormality	<b>PreD</b>	<b>3</b>
<b>NT11</b>	Multiple sclerosis and optic neuritis	<b>PreD</b>	<b>1</b>
<b>NT12</b>	Motor neuron diseases, Syringomyelia	<b>PreD</b>	<b>1</b>
<b>NT13</b>	Balance, Gait disorders, Ataxic disorders, Movement disorders	<b>PreD</b>	<b>1</b>
<b>NT14</b>	Parkinson's disease, Essential tremor, Tremor	<b>PreD</b>	<b>1</b>
<b>NT15</b>	Cognitive disorders, Dementia, Alzheimer's disease	<b>PreD-P-F</b>	<b>2</b>
<b>NT16</b>	Myasthenia gravis	<b>E</b>	<b>1</b>
<b>NT17</b>	Muscle diseases	<b>PreD</b>	<b>1</b>
<b>NT18</b>	Disorders of consciousness, Coma, Brain death	<b>E</b>	<b>1</b>
<b>TOTAL</b>			<b>24</b>

<b>EDUCATIONAL ACTIVITIES IN PRACTICE</b>	
<b>EDUCATION ACTIVITIES</b>	<b>LEARNING LEVEL</b>
Ability to take a history	<b>4</b>
Case discussion	<b>4</b>
Consciousness assessment Consciousness examination Taking neurological anamnesis	<b>4</b>
Neurological examination	<b>4</b>
Neurological examination Mental state- speech Cranial nerve examination Reflexes Motor system Sensory system Cerebellar system Movement disorder examination	<b>4</b>



Ability to perform lumbar puncture	<b>2</b>
Minimental condition examination License inspection Executive system inspection	<b>3</b>
Auxiliary tests in neurology: EMG, EEG	<b>1</b>



## 8. NEUROSURGERY

### PURPOSE:

To train physicians with an ethical and conscious approach in preliminary diagnosis, differential diagnosis, and preventive medicine practices in neurosurgery diseases frequently encountered in primary health care within the “**National Core Education Program**” framework for pregraduate medical education. To train physicians with knowledge about the etiology, diagnosis, and treatment of common diseases in neurosurgery and neurosurgery, who can identify and treat them in emergencies and refer them to a specialist when necessary.

### LEARNING OBJECTIVES:

1. In diseases related to brain and neurosurgery, takes medical history from patients and performs neurological examination,
2. Defines emergencies in diseases related to brain and neurosurgery,
3. Knows diagnostic tests that can be applied to patients, selects diagnostic tests that can be used in primary care and makes a preliminary diagnosis,
4. Evaluates neurological diseases related to neurosurgery and neurosurgery, neurological diseases at the primary care level, decide to refer to appropriate centers when necessary, and directs under proper conditions,
5. Explains the common health problems and causes of neurosurgery areas, taking into account the interaction of the individual with the environment,
6. Explain the diagnosis and treatment approaches of neurosurgery,
7. Explain the techniques of performing minor invasive procedures such as subdural tap, lumbar puncture, and ventricular puncture.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
To be able to evaluate mental status	3
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of neurosurgery	3
Consciousness assessment	4
Evaluation of general condition and vital signs	4
Neurological examination	3
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of neurosurgery	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to evaluate direct radiographs in terms of neurosurgery	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
To be able to interpret the results of screening and diagnostic examinations in terms of neurosurgery	3
<b>Interventional and non-interventional applications</b>	
To be able to manage forensic cases in terms of neurosurgery	3
To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4
Ability to open an intravenous line	3
To be able to recognize/protect/transplant evidence in terms of neurosurgery	2



To be able to evaluate Glasgow/AVPU coma scale	4
To be able to take biological samples from the patient	3
To ensure that the patient is transported appropriately	4
To be able to refer the patient appropriately in terms of neurosurgery	4
Minimetal condition examination	3
To be able to prepare the drugs to be applied correctly	3
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for neurosurgery	4
To be able to take precautions related to the protection of the health of health workers	4
<b>Principles and practices of scientific research (in terms of Neurosurgery)</b>	
To be able to compile scientific data and summarize them in tables and graphs	3
To be able to analyze scientific data with appropriate methods and interpret the results	2
To be able to plan research using scientific principles and methods	2
To be able to access current literature and read it critically	3
To be able to apply the principles of evidence-based medicine in clinical decision-making	3

THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
NST1	Clinical neuroanatomy	3	1
NST2	Peripheral nerve trauma and entrapment syndromes	PreD	1
NST3	Spinal column trauma and spinal cord injury	E-PreD	2
NST4	Spinal degenerative diseases (spinal stenosis, disc hernia) and spinal deformities	D-P	1
NST5	Evaluation of increased intracranial pressure syndromes	E	1
NST6	Cerebral vascular pathologies	E	4
NST7	Diagnosis and differential diagnosis of intracranial space-occupying masses	PreD	1
NST8	Central nervous system tumors	PreD	1
NST9	Central nervous system and primary spinal infections	E	2



<b>NST10</b>	Pediatric congenital anomalies	<b>D-P</b>	<b>1</b>
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<b>NST11</b>	Pediatric cranial and spinal tumors	<b>PreD</b>	<b>2</b>
<b>NST12</b>	Functional neurosurgery and radiosurgery	<b>PreD</b>	<b>1</b>
<b>TOTAL</b>			<b>18</b>

<b>EDUCATIONAL ACTIVITIES IN PRACTICE</b>	
<b>EDUCATION ACTIVITIES</b>	<b>LEARNING LEVEL</b>
Ability to take a history	<b>4</b>
Case discussion	<b>4</b>
Consciousness assessment Consciousness examination Taking neurological anamnesis	<b>4</b>
Neurological examination Mental state- speech Cranial nerve examination Reflexes Motor system Sensory system Cerebellar system Movement disorder examination	<b>4</b>
Performing minor invasive procedures such as subdural tap, lumbar puncture, ventricular puncture	<b>2</b>
Diagnostic methods Diagnostic neuroradiologic evaluations used in neurosurgery	<b>1</b>
Wound care and dressing	<b>3</b>



## 9. GYNECOLOGY and OBSTETRICS

### **PURPOSE:**

To train physicians with an ethical and conscious approach to obstetric and gynecological problems frequently encountered in primary health care regarding preliminary diagnosis, differential diagnosis, and preventive medicine practices within the “National Core Education Program” framework for pregraduate medical education. To train physicians with knowledge about the etiology, diagnosis, and treatment of common diseases in obstetrics and gynecology, who can identify and treat them in emergencies and refer them to a specialist when necessary.

### **LEARNING OBJECTIVES:**

1. Takes medical history from patients presenting with gynecological or obstetric complaints and performs physical examination,
2. Select diagnostic tests and make a preliminary diagnosis by the medical history and physical examination findings of patients presenting with gynecological or obstetric complaints,
3. Makes differential diagnoses using medical history, physical examination, diagnostic test results, and evidence-based medicine principles from patients presenting with gynecological or obstetric complaints. Organizes the treatment and follow-up of patients to be treated in primary care,
4. Evaluates the patient with gynecological or obstetric complaints, decide to refer to the appropriate center in terms of gynecology and obstetrics when necessary, and direct them under proper conditions,
5. Recognizes gynecology and obstetrics emergencies and refers them to the appropriate specialist and center,
6. Explains the common health problems and their causes in the field of gynecology and obstetrics, taking into account the interaction of the individual with the environment,
7. Explains diagnosis and treatment approaches in the field of gynecology and obstetrics,
8. Explains the practices and measures for the protection of health on individual and community basis in the field of gynecology and obstetrics,
9. Evaluate scientific knowledge in the field of gynecology and obstetrics based on evidence.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of gynecology and obstetrics	3
Abdominal examination	4
Consciousness assessment	4
Pregnancy examination	3
Gynecological examination	3
Rectal examination	3
Evaluation of general condition and vital signs	4
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of gynecology and obstetrics	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to evaluate direct radiographs in terms of gynecology and obstetrics	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
To be able to perform and evaluate complete urine analysis (including microscopic examination)	3
In terms of gynecology and obstetrics interpret the results of screening and diagnostic examinations	3



To be able to prepare a vaginal discharge sample	3
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<b>Interventional and non-interventional applications</b>	
To be able to manage forensic cases in terms of gynecology and obstetrics	<b>3</b>
To be able to apply the principles of rational drug use	<b>4</b>
To be able to order rational laboratory and imaging examinations	<b>4</b>
To be able to care for mother after childbirth	<b>3</b>
To be able to care for the baby after birth	<b>3</b>
Hand washing	<b>4</b>
Ability to open and suture episiotomy	<b>2</b>
To be able to monitor pregnant women and newborns	<b>3</b>
To be able to recognize/protect/transplant evidence in terms of gynecology and obstetrics	<b>2</b>
To be able to take biological samples from the patient	<b>3</b>
To ensure that the patient is transported appropriately	<b>4</b>
To be able to refer the patient appropriately in terms of gynecology and obstetrics	<b>4</b>
Ability to insert a urinary catheter	<b>3</b>
Ability to take samples for culture	<b>3</b>
Ability to make enema	<b>3</b>
To be able to apply basic life support	<b>4</b>
To be able to prepare the drugs to be applied correctly	<b>3</b>
Ability to take vaginal and cervical samples	<b>3</b>
Ability to suture and remove superficial sutures	<b>4</b>
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for gynecology and obstetrics	<b>4</b>
To be able to take preventive measures against healthcare-associated infections	<b>3</b>
<b>Principles and practices of scientific research (in terms of Gynecology and Obstetrics)</b>	
To be able to compile scientific data and summarize them in tables and graphs	<b>3</b>
To be able to analyze scientific data with appropriate methods and interpret the results	<b>2</b>
To be able to plan research using scientific principles and methods	<b>2</b>
To be able to access current literature and read it critically	<b>3</b>
To be able to apply the principles of evidence-based medicine in clinical decision-making	<b>3</b>



## Healthfulness



Follow-up and periodic health examinations at different stages of life (pregnancy follow-up, etc, ...)	4
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THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
GOT1	Diagnosis of pregnancy, endocrinology	DT	1
GOT2	Physiological maternal adaptation to pregnancy	F	1
GOT3	Preconceptional and antenatal care	F	1
GOT4	Gynecological anamnesis and examination	E-PreD	1
GOT5	Prenatal screening and diagnostic tests and pregnancy ultrasonography	E	1
GOT6	Assessment of fetal well-being	E	1
GOT7	Labor 1: Anatomy of the birth canal, Fetal position and delivery	E	1
GOT8	Labor 2: Physiology of labor, Normal vaginal delivery, Obstetric analgesia	E	1
GOT9	Operative delivery, cesarean section, vaginal after cesarean section birth	PreD-P	1
GOT10	Approach to risky pregnancies	PreD-P	1
GOT11	Recurrent pregnancy losses	E	1
GOT12	Dystocia and malpresentation	E	1
GOT13	Antepartum hemorrhage, placenta previa and Abruptio placenta	E	1
GOT14	Placenta and fetal physiology	PreD	1
GOT15	Surgical interventions in pregnancy, trauma in pregnancy	E	1
GOT16	Puerperium, lactation, puerperal complications	E-PreD	1
GOT17	Neonatal assessment and resuscitation	E	1
GOT18	Postpartum hemorrhage, Follow-up of the postpartum patient	E-PreD	1
GOT19	Drug use and teratogenicity in pregnancy	E	1
GOT20	Amniotic fluid disorders	E	1
GOT21	Premature rupture of membranes, preterm labor	E	1
GOT22	Intrauterine growth retardation	E	1
GOT23	Hypertension in pregnancy, pre-eclampsia, eclampsia, HELLP syndrome	D-E-P	2
GOT24	Diabetes in pregnancy and gestational diabetes	D-P-F	1
GOT25	Rh incompatibility and Erythroblastosis fetalis	PreD-P	1



<b>GOT26</b>	Nonimmune hydrops fetalis	<b>E- PreD</b>	<b>1</b>
<b>GOT27</b>	Congenital infections	<b>E- PreD</b>	<b>1</b>
<b>GOT28</b>	Maternal and perinatal bacterial infections, neonatal sepsis	<b>E- PreD</b>	<b>1</b>
<b>GOT29</b>	Ectopic pregnancy	<b>PreD</b>	<b>1</b>
<b>GOT30</b>	First trimester bleeding and problems	<b>E</b>	<b>1</b>
<b>GOT31</b>	Multiple pregnancy	<b>E</b>	<b>1</b>
<b>GOT32</b>	Postterm pregnancy and labor induction	<b>E</b>	<b>1</b>
<b>GOT33</b>	Hyperemesis gravidarum	<b>DT-E</b>	<b>1</b>
<b>GOT34</b>	Systemic diseases in pregnancy	<b>E-PreD</b>	<b>2</b>
<b>GOT35</b>	Anatomy and embryology of the female genital system, Müllerian anomalies	<b>E-PreD</b>	<b>1</b>
<b>GOT37</b>	Benign diseases of the lower genital tract	<b>E-PreD</b>	<b>1</b>
<b>GOT38</b>	Pelvic floor, Pelvic prolapse	<b>PreD</b>	<b>1</b>
<b>GOT39</b>	Approach to urinary incontinence	<b>PreD</b>	<b>1</b>
<b>GOT40</b>	Pediatric and Adolescent gynecology, Puberty	<b>PreD</b>	<b>2</b>
<b>GOT41</b>	Gynecological imaging methods	<b>E</b>	<b>2</b>
<b>GOT42</b>	Genital infections, Sexually transmitted diseases, Pelvic inflammatory disease	<b>DT-P-F</b>	<b>2</b>
<b>GOT43</b>	Pelvic pain, acute and chronic	<b>PreD-F</b>	<b>1</b>
<b>GOT44</b>	Gynecological emergencies, Genital trauma	<b>E</b>	<b>2</b>
<b>GOT45</b>	Approach to adnexal masses	<b>E-PreD</b>	<b>1</b>
<b>GOT46</b>	Endometrium cancer and uterine sarcomas	<b>PreD</b>	<b>2</b>
<b>GOT47</b>	Epithelial tumors of the ovary	<b>PreD</b>	<b>1</b>
<b>GOT48</b>	Non-epithelial tumors of the ovary	<b>PreD</b>	<b>1</b>
<b>GOT49</b>	Cancers of the vulva and vagina	<b>PreD</b>	<b>1</b>
<b>GOT50</b>	Cervical cancer	<b>PreD-P</b>	<b>1</b>
<b>GOT51</b>	Lower genital preinvasive diseases	<b>PreD</b>	<b>1</b>
<b>GOT52</b>	Gestational trophoblastic diseases	<b>PreD</b>	<b>1</b>
<b>GOT53</b>	Menstrual cycle and menstrual problems	<b>PreD</b>	<b>1</b>
<b>GOT54</b>	Approach to abnormal uterine bleeding	<b>E-PreD</b>	<b>2</b>
<b>GOT55</b>	Endometriosis	<b>PreD</b>	<b>1</b>
<b>GOT56</b>	Amenorrhea	<b>PreD</b>	<b>1</b>



<b>GOT57</b>	Polycystic ovary syndrome, Hirsutism	<b>PreD</b>	<b>1</b>
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<b>GOT58</b>	Menopause and Osteoporosis	<b>PreD-P</b>	<b>2</b>
<b>GOT59</b>	Evaluation of the infertile couple	<b>PreD-P</b>	<b>1</b>
<b>GOT60</b>	Assisted reproductive techniques	<b>E</b>	<b>1</b>
<b>GOT61</b>	Dysmenorrhea, premenstrual syndrome	<b>PreD</b>	<b>1</b>
<b>GOT62</b>	Benign diseases of the uterus	<b>PreD</b>	<b>1</b>
<b>GOT63</b>	Gynecological interventions	<b>PreD</b>	<b>2</b>
<b>GOT64</b>	Preoperative and postoperative follow-up for gynecologic surgeries	<b>E-PreD</b>	<b>1</b>
<b>GOT65</b>	Female sexual dysfunction	<b>PreD</b>	<b>1</b>
<b>GOT66</b>	Family planning and Contraception	<b>4</b>	<b>2</b>
<b>TOTAL</b>			<b>77</b>

<b>EDUCATIONAL ACTIVITIES IN PRACTICE</b>	
<b>EDUCATION ACTIVITIES</b>	<b>LEARNING LEVEL</b>
Pregnancy examination and follow-up	<b>3</b>
To be able to care for mother after childbirth	<b>3</b>
Puerperium monitoring	<b>3</b>
Nonstress testing and evaluation	<b>3</b>
Gynecological examination	<b>3</b>
Clarification and obtaining consent	<b>4</b>
To be able to prepare a patient file	<b>4</b>
To be able to prepare an epicrisis	<b>4</b>
Ability to refer the patient appropriately	<b>4</b>
To be able to prepare a refusal of treatment document	<b>4</b>
Ability to issue a prescription	<b>4</b>
Ability to insert a urinary catheter	<b>3</b>
Ability to open and suture episiotomy	<b>2</b>
Ability to have a normal spontaneous birth	<b>2</b>
Speculum insertion	<b>4</b>
Ability to take vaginal and cervical samples	<b>3</b>
Family planning counseling	<b>4</b>
To be able to apply contraception methods correctly and monitor users	<b>3</b>



## 10. UROLOGY

### **PURPOSE:**

To train physicians with an ethical and conscious approach to common urological diseases and symptoms in primary health care regarding preliminary diagnosis, differential diagnosis, and preventive medicine practices within the “National Core Education Program” framework for pregraduate medical education. To train physicians who know the etiology, diagnosis, and treatment of common diseases and symptoms in urology, who can identify emergencies, perform the first treatment, and refer them to a specialist.

### **LEARNING OBJECTIVES:**

1. Takes medical history from patients presenting and performs physical examination with urologic complaints,
2. Selects diagnostic tests and makes a preliminary diagnosis by the medical history and physical examination findings of patients presenting with urologic complaints,
3. Makes differential diagnoses using medical history, physical examination and diagnostic test results, and evidence-based medicine principles from patients presenting with urological complaints,
4. By evaluating the patient with urological complaints, it can decide to refer the patient to a higher-level center when necessary and directs them under appropriate conditions,
5. Recognize urologic emergencies,
6. Explains urologic diagnosis and treatment approaches,
7. Can explain the practices/measures for health protection on an individual and community basis in the field of urology.



BASIC MEDICAL PRACTICES	
APPLICATIONS	LEARNING LEVEL
<b>Story retrieval</b>	
To be able to take general and problem-oriented history	4
<b>Physical examination for the general problem</b>	
Forensic case examination in terms of urology	3
Abdominal examination	4
Rectal examination	3
Evaluation of general condition and vital signs	4
Urological examination	3
<b>Record keeping, reporting and notification</b>	
Clarification and obtaining consent	4
To be able to prepare an epicrisis	4
To be able to prepare health reports in accordance with current legislation	3
To be able to prepare a patient file	4
Ability to issue a death certificate	3
Ability to issue a prescription	4
To be able to prepare a refusal of treatment document in terms of urology	4
Reporting and reporting legally notifiable diseases and conditions	4
<b>Laboratory tests and other related procedures</b>	
To be able to provide decontamination, disinfection, sterilization, antisepsis	4
To be able to evaluate direct radiographs in terms of urology	3
To be able to fill the request form for laboratory examination	4
To be able to take the laboratory sample under appropriate conditions and deliver it to the laboratory	4
To be able to perform and evaluate complete urine analysis (including microscopic examination)	3
To be able to interpret the results of screening and diagnostic examinations in terms of urology	3
<b>Interventional and non-interventional applications</b>	
Manage forensic cases in terms of urology	3
To be able to apply the principles of rational drug use	4
To be able to order rational laboratory and imaging examinations	4





Recognize/protect/transplant evidence in terms of urology	<b>2</b>
Ability to open skin-soft tissue abscess	<b>3</b>
Hand washing	<b>4</b>
To be able to take biological samples from the patient	<b>3</b>
To ensure that the patient is transported appropriately	<b>4</b>
To be able to refer the patient appropriately in terms of urology	<b>4</b>
Ability to insert a urinary catheter	<b>3</b>
Minimental condition examination	<b>3</b>
Providing protection and transportation in accordance with the cold chain	<b>4</b>
Ability to perform suprapubic bladder puncture	<b>2</b>
To be able to apply basic life support	<b>4</b>
To be able to prepare the drugs to be applied correctly	<b>3</b>
<b>Preventive medicine and community medicine practices</b>	
Periodic medical examination for urology	<b>4</b>
To be able to take precautions related to the protection of the health of health workers	<b>4</b>
To be able to take preventive measures against healthcare-associated infections	<b>3</b>
<b>Principles and practices of scientific research (in terms of Urology)</b>	
To be able to compile scientific data and summarize them in tables and graphs	<b>3</b>
To be able to analyze scientific data with appropriate methods and interpret the results	<b>2</b>
To be able to plan research using scientific principles and methods	<b>2</b>
To be able to access current literature and read it critically	<b>3</b>
To be able to apply the principles of evidence-based medicine in clinical decision-making	<b>3</b>



THEORETICAL LECTURES			
LECTURE CODE	LECTURE TOPICS	LEARNING LEVEL	TIME
UT1	Definition of symptoms and general principles of approach	E	1
UT2	Routine urological examinations	E-PreD	1
UT3	Urinary tract infections and sexually transmitted infections	E-PreD	1
UT4	Urinary tract obstructions	E-PreD	1
UT5	Urogenital tract trauma	E-PreD	1
UT6	Prostate cancer	E-PreD	1
UT7	Kidney tumors	PreD	1
UT8	Adrenal tumors	PreD	1
UT9	Tumors of the collecting system	PreD	1
UT10	Testicular cancer	PreD-P	1
UT11	Bladder tumors	PreD	1
UT12	Circumcision, phimosis, paraphimosis, hypospadias, epispadiasis	PreD-P	1
UT13	Undescended testicle, hydrocele, acute scrotum	E-PreD	1
UT14	Hydronephrosis and obstructive uropathy, PUV	E-PreD	1
UT15	Voiding dysfunction, enuresis nocturna	E-PreD	1
UT16	Vesicoureteral reflux	E-PreD	1
UT17	Pediatric urooncology	E-PreD	1
UT18	Male infertility,	PreD	1
UT19	Erectile dysfunction, premature ejaculation, Peyroni disease	PreD	1
UT20	Female urology and functional urology	PreD	1
UT21	Benign prostatic hypertrophy	PreD	1
UT22	Urological interventions an instrumentation (Endoscopic surgery, laparoscopic surgery, robotic catheters used in surgery, urology)	2	1
UT23	Urinary tract stone disease	E-PreD	1
TOTAL			23



EDUCATIONAL ACTIVITIES IN PRACTICE	
EDUCATION ACTIVITIES	LEARNING LEVEL
History taking from patients	4
Bedside assessment of urologic symptoms (anuria-oliguria, dysuria, enuresis, hematuria, urinary retention, polyuria, scrotal pain, pollacuria/nocturia urethral discharge, urinary incontinence)	4
Requesting urine and blood tests in urologic patients and their results evaluation of	3
Sexual dysfunction/problems Approach to patients with infertility (male), diagnostic hormonal tests	1
Urinary catheter insertion	3
Requesting radiologic examinations in patients and evaluation of the results	2