ISTANBUL OKAN UNIVERSITY
FACULTY OF MEDICINE

COMPETENCIES, PHASE OBJECTIVES & COURSE CONTENTS

2024-2025

FACULTY OF MEDICINE

About Program

In this integrated medical curriculum, from cell to the human body, premedical sciences like behavioral sciences, medical biology and genetics together with core medical sciences such as anatomy, histology and embryology, physiology, medical microbiology, medical biochemistry are given to the medical student. After this basic medical courses, in the fourth year of medical education, students enter to the clinical rotations period. Students are couraged by the faculty members for contact with the patients directly at the bedside. They have to work in out-patient, in-patient, laboratory, emergency room, operation theater facilities under supervision of the attendant physicians. These rotations are known as the clinical clerkship that includes pediatric health and diseases, internal medicine, gynecology and obstetrics, general surgery and other rotations necessary. In the sixth year, students before graduation, works as an "intern" for one year by a rotation schedule in the hospitals.

Program Outcomes/Competencies

PROFESSIONAL KNOWLEDGE AND PRACTICES Physician who graduated from the Istanbul Okan University Faculty of Medicine;
1. Reflects the knowledge, skills and attitudes acquired from basic medical sciences, clinical medical sciences and human sciences to the provision of health services within the scope of the natural functioning, development and basic structure of humans in terms of molecules, cells, tissues and systems
2. Approaches patients and their relatives without discrimination of language, religion, ethnicity and gender, and shows an approach that takes into account the society in which individual lives and her/his psychology in the provision of health services
3. Provides a health promotion for individual and community health
4. Provides a primary health services for common diseases in community using effective methods and evidence based medicine
5. Performs invasive and/or non-invasive practices safely and effectively during the diagnosis, treatment and monitoring of disease and clinical problems
6. Provides health education to the healthy person and patient/teheir relatives and health professional, based on the characteristics, needs and expectations of the community she/he serves
7. Evaluates the effects of environmental factors on human health
PROFESSIONAL VALUE AND APPROACH Physician who graduated from the Istanbul Okan University Faculty of Medicine;
8. Recognize the health system and adopt the improvement of the quality of health services by evaluating the impact of health policies and practices on individual an community health indicators.
9. Services well practice to the individual applying for health care or any health need, with a communication approach that understands the situation and focuses on solution
10. Acts in accordance with Professional values, ethical pronciples and legal regulations
11. Takes care to explain medical options objectively during the diagnosis, treatment and follow-up stages of the health problems and takes an approach together decision-making with her/his patient

12. Uses resources for he benefit of society and in accordance with the legal framework in the management of health institutions and medical units, planning, implementation and evaluation of health services
13. Works in cooperation with the healthcare team and with colleagues and behaves in accordance with her/his responsibility within the team
PROFESSIONAL AND INDIVIDUAL DEVELOPMENT Physician who graduated from the Istanbul Okan University Faculty of Medicine;
14. Knows and develops at least one foreign language well in order to follow current medical knowledge and communicate with colleagues
15. Assumes responsibility for lifelong learning and applies the principles of evidence-based medicine
16. Develops the ability to work independently, self-evaluate and take responsibility
17. Produces secientific projects, participates in and organizes scientific meetings
18. Uses information Technologies effectively in healthcare facilities, scientific studies and continuous learning processes
19. Effectively manages discipline-based learning and career development
20. Selects effective learning resources and self-regulates continuous learning processes in order to improve the quality of healthcare service she/he offer

Students graduated after successful completion of courses through the six-year program. 360 credits are required for graduation.

Curriculum Phase I

1st SEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED101	Basic Sciences Committee I	Yes	Yes	8	**10**
MED103	Basic Sciences Committee II	Yes	Yes	8	**10**
ATA111	Atatürk Principles and History of Turkish Revolution I	No	No	15	**2**
TRD111 / TRD 105	Turkish Language I / Turkish For Foreigners I	No	No	15	**2**
Core 301	Academic Reading and Writing I	No	No	15	**4**
KYP001	Career and Life Planning	Yes	No	15	**1**
				TOTAL	**29**

2ndSEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED102	Basic Sciences Committee III	Yes	Yes	8	**12**
MED104	Basic Sciences Committee IV	Yes	Yes	9	**13**
ATA112	Atatürk Principles and Historyof Turkish Revolution II	No	No	15	**2**
TRD112/ TRD106	Turkish Language II / Turkish For Foreigners II	No	No	15	**2**
Core 302	**Intermediate Academic Spoken English**	No	No	15	**4**
				TOTAL	**33**

*C: Compulsory
**A: Average

Curriculum Phase II

1st SEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED211	Body Systems Committee 1 Neural Sciences Committee	Yes	Yes	8	**13**
MED213	Body Systems Committee 2 (Med213) Cardiovascular And Respiratory Systems	Yes	Yes	9	**12**
Core 303	Academic English Reading and Writing II	No	No	15	**4**
				TOTAL	**29**

2nd SEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED212	Body Systems Committee 3 Gastroenterology System	Yes	Yes	7	**12**
MED214	Body Systems Committee Iv Endocrine & Urogenital System Committee	Yes	Yes	8	**12**
BBA222	Entrepreneurship Applications	No	No	15	**3**
Core 304	High Intermediate Academic Spoken English	No	No	15	**4**
				TOTAL	**31**

*C: Compulsory
**A: Average

Curriculum Phase III

1st SEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED321	Biological Fundamentals Of Diseases I- Respiratory And Cardiovascular System & Related Disorders	Yes	Yes	6	12
MED323	Biological Fundamentals Of Diseases II-Gastrointestinal System & Infectious Diseases	Yes	Yes	6	12
				TOTAL	**24**

2nd SEMESTER COURSE PLAN

Code	Course Title	*C	**A	Duration (Week)	ECTC
MED322	Biological Fundamentals Of Diseases III-Urogenital & Endocrine System Diseases	Yes	Yes	7	12
MED324	Biological Fundamentals Of Diseases IV- Growth&Development, Integumantary & Neurologic System And Related Disorders	Yes	Yes	7	12
MED326	Socioeconomic, Psychologic And Cultural Fundamentals Of Disorders			6	12
				TOTAL	**36**

*C: Compulsory

**A: Average

Curriculum Phase IV

COURSE PLAN

Code	Course Title	*C	**A	ECTC
MED401	Forensic Medicine	Yes	Yes	**4**
MED411	Radiology and Nucleer Medicine	Yes	Yes	**3**
MED412	Anesthesiology and Reanimation	Yes	Yes	**3**
MED413	Rational Use of Drugs	Yes	Yes	**3**
MED421	General Surgery	Yes	Yes	**10**
MED422	Pediatrics	Yes	Yes	**10**
MED423	Gynecology and Obstetrics	Yes	Yes	**10**
MED424	Family Medicine I	Yes	Yes	**3**
MED425	Emergency Medicine I	Yes	Yes	**3**
MED426	Internal Diseases	Yes	Yes	**11**
			TOTAL	**60**

*C: Compulsory
**A: Average

Curriculum Phase V

COURSE PLAN

Code	Course Title	*C	**A	ECTC
MED519	Neurology	Yes	Yes	**4**
MED520	Cardiovascular Surgery	Yes	Yes	**2**
MED521	Chest Diseases	Yes	Yes	**5**
MED522	Thorasic Surgery	Yes	Yes	**2**
MED523	Dermatology	Yes	Yes	**5**
MED524	Ear Nose and Throat	Yes	Yes	**5**
MED525	Infectious Diseases	Yes	Yes	**5**
MED527	Neurosurgery	Yes	Yes	**5**
MED530	Pediatric Surgery	Yes	Yes	**2**
MED531	Physical Medicine and Rehabilitation	Yes	Yes	**5**
MED532	Plastic and Reconstructive Surgery	Yes	Yes	**2**
MED534	Urology		Yes	**2**
MED535	Ophthalmology	Yes	Yes	**4**
MED536	Orthopedics and Traumatology	Yes	Yes	**4**
MED537	Psychiatry	Yes	Yes	**4**
MED541	Cardiology	Yes	Yes	**4**
			TOTAL	**60**

*C: Compulsory
**A: Average

Curriculum Phase VI

COURSE PLAN

Code	Course Title	*C	**A	Duration (Month)	ECTC
MED601	Internal Medicine	Yes	Yes	2	**10**
MED602	General Surgery	Yes	Yes	1	**5**
MED603	Gynecology and Obstetrics	Yes	Yes	1	**5**
MED604	Pediatric Health and Diseases	Yes	Yes	2	**10**
MED605	Public Health	Yes	Yes	1	**5**
MED606	Emergency Medicine	Yes	Yes	2	**10**
MED607	Elective Rotation	Yes	Yes	1	**5**
MED608	Psychiatry			1	**5**
MED609	Family Medicine			1	**5**
				TOTAL	**60**
GRAND TOTAL OF THE 6 YEARS					**360**

*C: Compulsory
**A: Average

Course Descriptions and Learning Objectives

Curriculum Phase I

MED101 Basic Science Committee I (10 credits)

The purpose of this course is to examine the main components of behavioral sciences by analyzing the reason for human behavioral nature and providing general information about theoretical subjects of psychology as defence mechanisms, psychology of learning and attitude theorizes. Students understand the intended use of laser and ultrasound in medical treatment and surgery, applying the cybernetic principles in medical practices. They learn molecular structure and function of cellular membranes, permeability specialties. The general structure of the course is to describe the chemical foundations of the human organism; a brief knowledge of basic organic chemistryis given and the structures of proteins are worked out, the chief concern being the structure-function relation. Specific emphasize has been given to gain basic terminology and background information necessary for learning the history of medicine and ethical principles relating with the medical profession. It is also aimed to examine the main component of cell biology for establishing background for medical students. Through chapters, we will discuss issues related to both inside and outside of the cell, cell environment, molecular basis of some diseases, DNA, RNA structure, function and transcriptional regulation. Students gain a basic perspective to understand the cell biology concept including microscope, microscopy and histochemical techniques, cell and its content, nucleusand cell cycle. In addition, they learn different epithelial tissue types line the human body together with functions and locations of epithelium types.

At the end of this course, the students will be able to:

- To define cellular structures, cytoskeleton, cell membrane, and organelles and explain the diseases that occur with the dysfunction of these structures; to define nucleic acids, explain transcription, translation and replication mechanisms and their regulation.
- To explain the types of microscopes commonly used in histological research, organelle structures within the cell and cell extracellular matrix interaction;
- To identify microscope parts and distinguish different types of cells under the microscope,
- To explain the importance of biostatistics in terms of health and medical sciences, classify data and summarize findings with central tendency measures, interpret findings with prevalence measures and create graphs/tables,
- To explain the place of humans in behavioral sciences; can explain the neurogenetic, cognitive, psychological, and sociocultural components of behavior,
- To define the basic features of medical ethics, and to explain important events in the history of medicine, World Health Organization regulations and patient rights, ,
- To explain the processes and cellular events occurring in living systems using physical laws, physical models and methods.
- To relate the basic principles of biochemistry to medical practices and to understand its role in health sciences; to understand the properties of the water molecule, acid-base balance and to evaluate buffer systems; to learn the basic chemical principles of biochemistry and to evaluate the effects of chemical bonds on biochemical functions; to learn the structures and functions of carbohydrates, understand carbohydrate metabolism and examine biological diagnosis methods.

MED102 Basic Science Committee III (12 credits)

The purpose of this course is to the field and provides a survey of data and data types. To acquaire basic terminology necessary for studying anatomy, recognize the general patterns of muscles and bones is targeted. At the end of the course, student is able to describe the anatomical features of neurocranium, splanchnocranium, vertebral column, thoracic and rib bones, upper and lower extremities. It is also intended to increase students' knowledge of how social and behavioural scientists discover, describe, and explain the behaviours and interactions among individuals, groups, institutions, events and ideas. Such knowledge will better students to understand themselves and the roles they play in addressing the issues facing humanity. Biochemistry course is to give information on biochemical thermodynamics, the utilization of vitamins and minerals as cofactors of enzymes, acids, bases and buffers and the biochemical constituents of cellular membranes, their organization and dynamic features. Physiology course is to give a basic perspective to understand the cell biology concepts, introduce the major type of human tissues and explain the connection between morphology of particular cells and their functions. Understanding of basic terminology and background information necessary for learning the history of medicine and ethical principles relating with the medical profession is aimed. Examination of the genetic inheritance and molecular techniques and understanding of basic perspective of the cell biology concepts and the major type of human tissues is targeted. Connection between morphology of particular cells and their functions are emphasized. Embryology course is to give information on fertilization, implantation and continuous developmental processes in embryo including bilaminar germ disc formation, gastrulation, neurulation, and starting from 3rd month, monthly changes occur in fetus till birth. In addition, students will learn molecular mechanisms accompanying the developmental period and they gain clinically knowledge regarding developmental abnormalities, congenital birth defects and their main causes.

At the end of this course the students will be able to:

- Define termination of anatomy, general considerations of the bones and muscles, elements of neuro and splanchnicranium, elements of thorax and ribs, upper and lower extremities.
- Understanding the normal structures and functions of human body
- Discuss the cultural and sexual effects on creativity and the degradation method of negative effects on this concept. At the end of this course the student will be able to describe the chemical and physical laws that govern biological processes; the biochemical functions of vitamins and bioelements and describe the concept of acids , bases and buffers and the composition, architecture and the dynamic features of membranes
- Explain gametogenesis period, the chromosomal and genetic factors that cause the birth defects and spontaneous abortions, fertilization, implantation, the first week of development, formation of endodermal-mesodermal-ectodermal germ layers and further development of them, the fetal period, monthly changes of fetus, fetal membranes and detailed structure and functions of placenta.
- Define the role of the physician as an expert witness in the court, contributions of Mazhar Osman Uzman and Hulusi Behçet, Paracelceus, La Mettrie, Sechenov, IP Semmelweiss, Metchnikov to medicine.
- Discuss issues related to both mendelian and non-mendelian genetics, biotechnological approaches used in genetics, population genetics, chromosome abnormalities, genetic counselling.
- Name the different fluid compartments, electrolytes and define diffusion, osmosis, and tonicity, the resting membrane potential in the human body.

MED103 Basic Science Committee II (10 credits)

The purpose of this course is to identify the most accurate method for imaging the internal structures of living organisms, describe atoms, molecules, matter and tissues. Students learn and gain the ability in practicing the electrical currents on tissue in both diagnosis and therapy. Exploration of the functioning of hemoglobin as an allosteric protein; collagen, a connective tissue protein that is subject to posttranslational modification; the enzymes and to describe the structures and biological functions of carbohydrates and lipids are aimed. The importance of basic terminology and background information necessary for learning the history of medicine and ethical principlesrelating with the medical professions are emphasized. Examination of the main component informational molecules of cell biology for establishing background for medical students are learned. From molecules to cells, students learn tissue variations and their main histological component individually.

At the end of this course, the students will be able to:

- Identify and understand differences and commonalities within diverse cultures
- Compare the structural and functional characteristics of myoglobin and hemoglobin; describe collagen and its post-translational modification; describe the structural and functional characteristics of enzymes; describe the structures and the physiological significances of various carbohydrates and lipids
- Define the Hipocrates as a physician and hipocratic medicine and Galen of Pergammon., İbni Sina (Avicenna) and Razi, Pavlov and Beaumont on gastric physiology.
- Describe medicine after World War II, The Nuremberg Code and human experimentation.

- To discuss issues related to genetic code of mitochondria and cell, functional and non-functional RNA types, post-transcriptional regulation, protein synthesis steps occurring in cell, human genome organization, mutagenesis and main types, genetic control mechanisms.
- Describe atoms, molecules and matter
- Identify the most accurate method for imaging the internal structures of living organisms
- Explain the basic mechanisms of vision and hearing
- Learn and gain the ability in practicing the electrical currents on tissue both in diagnosis and therapy
- Gain ability in observing the biophysical mechanisms in circulatory system and the aroused problems
- Explain histological organizations regarding common tissue types, their distribution and functions.
- Recognize fundamentals of biostatistics in health-related fields. Estimate population parameters from sample data and determine the appropriate test to use based on how the data was collected and outcome variable of interest.

MED104 Basic Science Committee IV (13 credits)

The purpose of this course is to gain basic terminology necessary for studying anatomy, recognize the general patterns of muscles and bones. At the end of the course, student is able to define the thoracic wall and the mediastinum and heart, arteries and veins, chambers and neural structures, pericardium and its relations. Students describe general features of pharynx, trachea, lungs, the root of neck and diaphragm. Students who complete course are expected to be able to understand and interprete all of the basic statistical methods used in scientific journals in their field of study, as well as use basic statistics in their own research. Information on the transport mechanisms through the cellular membranes, various signal transmission mechanisms, biologic oxidation and oxidative phosphorylation are emphasized. The embryology course is to provide sufficient information regarding prenatal development of human organism starting from fertilization through formation of blastocyst, neurulation, gastrulation, and organogenesis to the time of birth including monthly changes in development period, sensitivity of embryo and fetus to the common teratogenic factors. In addition, students will learn molecular mechanisms accompanying the developmental period, they gain clinically knowledge regarding developmental abnormalities, congenital birth defects and their main causes. Examination of the main component of cell biology, and genetics for establishing background for medical students are underlined. The cell biology concepts and the major type of human tissues and their explanation with the connection between morphology of particular cells and their functions are learned.

At the end of this course, the students will be able to:

- Define the thoracic wall and the mediastinum and heart, arteries and veins, chambers and neural structures, pericardium and its relations.
- Describe general features of pharynx, trachea, lungs, the root of neck and diaphragm.
- Analyse knowledge of human psychosocial development throughout the lifespan and the ways in which developmental stages can be used to understand the needs of a person whether in childhood, adolescence or in adulthood.

Describe the solute transport mechanisms; the transmission of various signals across membranes; the enzymes functioning in biological oxidation; the elements of respiratory chain and the process of oxidative phosphorylation

- Explain gametogenesis period, the chromosomal and genetic factors that cause the birth defects and spontaneous abortions, fertilization, implantation, the first week of development, formation of endodermal-mesodermal-ectodermal germ layers and further development of them, the fetal period, monthly changes of fetus, fetal membranes and detailed structure and functions of placenta.
- Give idea about to genetic diseases, meiotic and mitotic cell division, cell cycle regulation, cell death regulation, cancer genetics, immunogenetics.
- Name the parts of a neuron and their functions, the major classes of muscle in the body, the molecular and electrical makeup of muscle cell excitation-contraction coupling; differentiate the mechanisms for skeletal, cardiac, and smooth muscle contraction.
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Curriculum Phase II

MED 211 Nervous System Committee (12 credits)

The purpose of this course is to gain the necessary skill and knowledge on the anatomy of the nervous systems. Sufficient knowledge regarding the histology and embryology of nervous system in human body and information on cerebrospinal fluid and the neurotransmitter systems in the central nervous system including the functions of norepinephrine, dopamine, acetylcholine, serotonin, GABA and glutamate will discuss. General characteristics of viruses, classification of viruses and the infections caused by the viruses with clinical presentations, diagnosis and treatment will define. Information regarding the physiology of organ systems in human body and explanations about the physiologic mechanisms of particular systems and their functions will emphasize. *Prerequisites:MED101, MED102, MED103 and MED104.*

At the end of this course, the students will be able to:

- Define subdivisons of the central nervous system, structure of spinal cord ascending and the descending tracts, brainstem and divisions; medulla oblongata, pons, mesencephalon, diencephalon, hypothalamus, hypophysis and the basal ganglia, thalamus, cerebral hemispheres, cerebral cortex areas, the brain ventricles, cerebrospinal fluids, vessels of the central nervous system, olfactory pathways, the limbic system and the rhinencephalon, cranial nerves. The orbit and the eyeball, the visual pathways, the ear and the vestibular system, the auditory and the vestibular pathways.
- Explain the neuron cells, supporting glial cell types, histological structure and developmental process of organs that comprise the central and peripheral nervous system, histological content of meninges and the blood-brain barrier together with the histology and embryology of integumentary system and sensory organs.
- Describe the biochemical characteristics of the blood-brain barrier in prevention of substances in blood from entering the CSF, the normal composition of cerebrospinal fluid; the relationship of CSF protein and glucose
- levels to their serum levels; appreciate that the high metabolic rate of the brain is dependent upon a constant supply of glucose and describe briefly the metabolism of primary neurotransmitters
- Define the characteristics of viruses and the diseases caused by DNA,RNA viruses and prions
- Describe the general organization of central and peripheric nevous sytem, senses, learning, memory formation, limbic sytem, basal ganglia, spinal cord, reflexes and general organization of peripheral nervous sytem, autonomic nervous system mechanisms.

MED 213 Cardiovascular and Respiratory System Committee (11 credits)

The purpose of this course is to gain basic anatomical knowledge of cardiovascular and respiratory systems. Students recognize the general patterns of muscles and other structures of the roots of the neck. At the end of the course, student is able to describe the anatomical features of heart, lungs, visceral and parietal coverings, mediastinum, nose, diaphragm, pharynx, larynx and trachea. Sufficient information regarding the histology and embryology of cardiovascular and respiratory systems in human body are given. The roles of plasma proteins; the biochemical pathways for synthesis and degradation of heme; the biochemical characteristics of porphyrias and jaundices and the biochemistry of erythrocytes are emphasized. Basics of medical microbiology are given. Sufficient information regarding the physiology of organ systems in human body and explanations about the physiologic mechanisms of particular systems and their functions are described. *Prerequisites: MED101, MED102, MED103 and MED104.*

At the end of this course the students will be able to:

- Define the thoracic wall and the mediastinum, heart, arteries and veins, pharynx, trachea, lungs, the root of neck and diaphragm.
- Explain the histological layers in the wall of the heart, fibrous skeleton, conducting system components in the heart; histological wall structures for large arteries, medium arteries, small arteries, capillaries and veins; the content, cellular component, the histological features of blood cells (erythrocytes, leukocytes and thrombocytes), hemopoiesis; the diffuse lymphatic tissue, lymphatic nodules, lymph nodes and their associated reticular meshwork, the general histological architecture of thymus- spleen and the detailed histological structure of the lungs.
- Define plasma proteins; discuss the structure and function of immunoglobulins; describe the acute phase reactants; describe the biosynthesis of heme; and clinical significance of porphyrias; describe the degradation of hemoglobin and the main types of jaundice; describe the cytoskeleton and the metabolic characteristics of erythrocytes
- Define the classification of microorganisms, the morphology, structure, physiology, genetics of bacteria,culture media,stains, sterilization and disinfection, antimicrobial agents, normal microbial flora and interactions of the microbe and the host.
- Describe the structure and function of the conduction system of the heart and compare the action potentials in each part, the way the electrocardiogram (ECG) is recorded, the waves of the ECG, and the relationship of the ECG to the electrical axis of the heart; understand the pressure, volume, and flow changes that occur during the cardiac cycle. And identify the components of blood and lymph, their origins, vascular, hemotological and immun system mechanisms

MED212 Gastrointestinal System and Metabolism Committee (12 credits)

The purpose of this course is to identify and illustrate the gastrointestinal system anatomy, recognize the patterns of mimic muscles and the parts of the gastrointestinal tract and to provide sufficient information regarding the histology and embryology of gastrointestinal system in human body. Metabolism of carbohydrates, lipids and proteins are given and the clinical situations that arise from the derangements are discussed. Sufficient information regarding the physiology of organ systems in human body and explanations about the physiologic mechanisms of particular systems and their functions are emphasized. Some bacteria and fungi causing infectious diseases are described. *Prerequisites: MED101, MED102, MED103 and MED104.*

At the end of this course the students will be able to:

- Define the mimic muscles, temporomandibular joints and muscles of mastication, abdominal wall, the great vessels and parts of the peritoneum, oesophagus, stomach, liver, gall bladder and the biliary ducts, pancreas, spleen
- Recognize the rectum, anal canal, the inguinal canal, vessels and the nerves of the digestive tract and the portal system,
- Explain the histological features, functions and difference of the organs located in oral cavity, major salivary glands and general histological stratification pattern for esophagus, stomach, small and large
- intestine and explain the functions-blood supply-structural organization of liver, gallbladder, exocrine and endocrine pancreas in accordance with detailed developmental process of digestive system.
- Discuss the digestion, absorption and the metabolism of carbohydrates, proteins, and fats
- To describe adaptive immunity, hypersensitivity reactions,immunological diagnostic tests, Gram(+)cocci, Gram(-)cocci, Gram (-)bacilli, Gram(+) bacilli and spor forming rods.
- Understand the functional significance of the gastrointestinal system, and in particular, its roles in nutrient assimilation, excretion, and immunity.

MED214 Endocrine and Urogenital System Committee (11 credits)

The purpose of this course is to gain the necessary skill and knowledge on the anatomy of the endocrine and urogenital systems and to provide sufficient information regarding the histology and embryology of endocrine and urogenital systems in human body. Information on endocrine biochemistry, body water and electrolytes, acid-base control and acid-base disorders and renal function are explained. Sufficient information regarding the physiology of organ systems in human body and explainations on physiologic mechanisms of particular systems and their functions are emphasized. Immunology and some bacteria causing human disease are described. *Prerequisites: MED101, MED102, MED103 and MED104.*

At the end of this course the students will be able to:

- Define surface anatomy and topographical landmarks of the kidney and ureters, bladder and urethra, pelvis and perineum, female and male genital organs, suprarenal glands, the thymus, the thyroid gland, the parathyroid gland.
- Explain the histological structure, functions and development process for endocrine glands, kidney, urinary bladder, urethra, organs and accessory sex glands that constitute the male reproductive system and internal and external genital organs that constitute the female reproductive system.
- Explain the general characteristics of endocrine system, the mechanisms of hormone action; describe the production, storage, release transport, metabolism and effects of hormones, the clinical features of the excess and deficiency states for hormones
- List the main functions of the kidney; discuss the roles of kidney in electrolyte-water and acid-base balances, the abnormalities in renal function during the course of diabetes mellitus

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- Define Actinomyces, Nocardia and Mycobacterium spp, Spirochetes, Ricketsia, Chlamydia, Mycoplasma and medically important fungi and diseases caused by these microorganisms.
- Describe the structure of hormonal system, mechanisms, male and female reproductive physiology and the basic mechanisms of urological mechanisms, renal and tubular physiology.

Curriculum Phase III

MED321 Biological Fundamentals Of Diseases I- Respiratory And Cardiovascular System & Related Disorders (12 Credits)

The purpose of this course is to explain the genetic mechanisms and etiology of the cardiovascular system diseases of the children and adults, besides their clinical and pathological features. History taking and physical examination will demonstrate to the students. Students also develop an approach of medical and surgical treatments anddiagnostic tools in the simulation laboratory. They gain clinical skillsbefore entering the clinic rotations by performing examinations and procedures with simulated patient in the simulation center. Definitions regarding drug, pharmaceutical forms, routes of administration, the absorption of the applied changes on the bodyand the basic concepts related to excretion during the course of processing are discussed. In addition, the students gain knowledge about of the concept of receptor and post-receptor events and mechanisms of action of drugs. Students taking the course will learn the rules of pharmacokinetics and pharmacodynamics in general before examining specific groups of drugs, the genetic mechanisms of the infectious diseases in children and adults; the clinical and pathological features of them and the correlation of them with the microorganisms. This course also describes some infectious diseases with their pathogenesis, clinical characteristics, diagnosis, treatment, prevention. *Prerequisites: MED211, MED212, MED213, MED214.*

At the end of this course, the student will be able to:

1. Understand pathological processes within the scope of cell damage and cellular response
2. To distinguish benign and malign tumor development within the scope of carcinogenesis pathology
3. Understanding cancer genetics
4. Discussing the process of neoplastic cell transformation in the hematological system
5. Recognizing pathological chance in cardiovascular and respiratory system diseases
6. Recognizing cardiovascular genetic disorders
7. Recognizing cardiovascular risk factors and discussing strategies to prevent tobacco addiction
8. To evaluate diagnostic indicators and test in the respiratory system based on gas exchange in the respiratory system
9. Understanding microbiological diagnostic processes in the respiratory system infections
10. Understand the physical examination symptoms of cardiovascular problems in children
11. Recognizing allergic reactions and their symptoms in children and developing an emergency approach
12. Classifying non-communicable diseases and developing approaches to control chronic pulmonary diseases
13. Recognizing fluid and electrolyte imbalance and shock and developing a differential diagnosis approach
14. Evaluating biochemical processes in anemias and hemoglobinopathies
15. To understand the pharmacological mechanism of basic drugs used in respiratory and circulatory system diseases

MED323 Biological Fundamentals Of Diseases II
Gastrointestinal System & Infectious Diseases (12 Credits)

Diagnostic techniques related with gastrointestinal system diseases and the application of methods will be discussed. Organ transplantation issues, approach to the acute abdomen, malign and vascular diseases of the gastrointestinal disease; life threatening conditions like hepatic coma are discussed. The purpose of this course is to recognize immune systems and infectious diseases caused by microbial agent. Learn infectious disease pathogenesis and acquire the approach for their diagnosis and treatment. Students develop skills history taking and the physical examination to pre-diagnose for infectious disease. Students will discuss to prevent infectious disease and community health prevention. *Prerequisites: MED211, MED212, MED213, MED214.*

- Know and explain pathogenesis, biochemical pattern and pathogenesis
- Develop approach diagnostic methods and treatment of gastrointestinal system diseases
- Develop skills history taking and physical examination methods for gastrointestinal system
- Explain to the acute abdomen syndrome, malign and vascular diseases of the gastrointestinal disease and other life threatening conditions like hepatic coma.
- Classify choices of medical and surgical treatments in emergency.
- Explain the effects, side effects, dosages and drug interactions of drugs used in gastrointestinal system diseases
- Discuss diagnostic techniques related with infectious diseases and the application of microbiologic methods.
- Develop community health approach to combat some infectious disease caused by endemic and pandemic

MED322 Biological Fundamentals of Diseases III

Urogenital & Endocrine System Diseases

The purpose of this course is to recognize endocrine and urogenital systems diseases, learn their pathogenesis and treatment. Students learn to take the story and the examination methods and develop their clinical skills on simulated patients. Diagnostic techniques related with endocrine and urogenital systems diseases and the application of these methods are discussed. Genetic screening issues, organ transplantation, approach to the renal insufficiency, malign and vascular diseases of the endocrine and genitourinary systems diseases; life threatening conditions like thyroid storm, miscarriages, complicated pregnancies are discussed. Long term maintanence of the pediatric renal or endocrine patients are discussed. Clinical problem solving in cases with acid-base imbalance are given. The pathological basis of these problems are reviewed in detail. A special emphasiseis given to general principle of pathophysiological basis of disases. Diagnostic modalities and different techniques of imaging methods related with the diseases entities are also learned. They gain clinical skills before entering the clinic rotations by performing examinations and procedures with simulated patient in the simulation center. *Prerequisites: MED211, MED212, MED213, MED214.*

At the end of this course, the student will be able to:

- Diagnosis normal and pathological structures of the urogenital system
- Knows the pathophysiology of endocrine and urogenital system diseases.
- Define Hypothalamo-Hypophysis System
- Explain the general characteristics of endocrine system, the mechanisms of hormone action; describe the production, storage, release transport, metabolism and effects of hormones, the clinical features of the excess and deficiency states for hormones
- Describe acut and chronic renal failure and their treatment
- Defines diabetes mellitus, knows the type of DM, diagnosis and treatment
- Describe obstetric and gynecological emergencies and explain diagnosis and treatment
- Explain family planning methods, pregnancy status and diagnosis, birth and puerperium.
- Explain the effects of drugs used in endocrine and urogenital system diseases, their side effects, doses and drug interactions.
- Gain clinical skills before entering the clinic rotations by performing examinations and procedures with simulated patient in the simulation center.

MED324 Biological Fundamentals of Diseases IV
Growth&Development, Integumantary & Neurologic System and Related Disorders (12 Credits)

The purpose of this course is to gain the necessary skills and knowledge on the clinical anatomy of the nervous system, skeleton, articulations and bones. Disease mechanisms and histopathological considerations in these systems will discuss in details in pathophysiology and pathology courses. Diagnostic information on cerebrospinal fluid and the neurotransmitter systems in the central nervous system including the functions of neurotransmitters will discuss. Genetic diagnose of neurological diseases are given. Mental disorders and examination of the Psychiatric patient summarized in general. Principles of physical examination and approach to the patients with musculoskeletal problems and their special treatment methods will summarize also. Special issues of internal medicine related with neurology, orthopedics, physical medicine and the psychiatry will discuss. Approach to the child patient and their special treatment differences are given. They gain clinical skills before entering the clinic rotations by performing examinations and procedures with simulated patient in the simulation center. *Prerequisites: MED211, MED212, MED213, MED214.*

At the end of this course, the student will be able to:

- Describe the composition and functions of the nervous system.
- Describe the composition and functions of the Musculoskeletal system
- Define mental activities, behavioral aspects of human.
- Describe the pathology and histopathological findings of nerve and musculoskeletal system diseases.
- Describe examination methods in clinical neurology, psychiatry, orthopedics and physical medicine and rehabilitation. Know diagnosis methods; interpret biochemical and radiological examination results.
- Define diagnostic modalities in these pathological processes, application of techniques and interpretation of the results.
- Describe special therapeutic interventions in musculoskeletal diseases.
- Define pathophysiological mechanisms of the issues and histopathological findings in diseases.
- Explain effects and side effects of pharmacological agents related with central nervous system, mood altering drugs, pain treatment and anesthetics.
- Develop clinical skills before entering the clinic rotations by performing examinations and procedures withsimulated patient in the simulation center.

MED 326 Socioeconomic, Psychologic and Cultural Fundamentals of Disorders Comittee (12 credit)

The aim of the committee is to develop a holistic understanding of the biological causes of health, as well as its social, economic, cultural, psychological an environmental effects, and to develop skills in evaluating the patient/healthy individual in the context of the relationship between social, economic an cultural factors and disease and/or clinical problem, and establishing a causal relationship.

This committee also aims to develop pyscian identity and professional valurs, to develop the skills of working with the healthcare team, cooperation and managing group dynamics, and to enable students to experience the processes that a scientific study must go through until it reaches the proposal level of a scientific study, starting from a research question. *Prerequisites: MED211, MED212, MED213, MED214.*

At the end of the Committee, Students will;

- Discuss social, economic, cultural and psychological factors among the factors affecting health and disease,
- Develop a sense of professional values,
- Recognize teamwork process and function dynamics
- Carry out a scientific research design with teamwork
- Experience developing a scientific research question, establishing hypotheses and designing research methods and tools within the scope of these hypotheses,
- Participate in community-based practices and explain the changes and effects of individual's physical and psychological heath at different developmental stages,
- Develop basic clinical skills and basic physical examination skills in the simulation laboratory.

Curriculum Phase IV

MED 401 Forensic Medicine (4 credits)

The purpose of this course is to gain information on the forensic medicine and the criminal issues. This program includes introduction to thanatology, methods of autopsy, basic forensic toxicology, basic forensic pathology, basic criminal diagnostics, methods of forensic examination and medical examiner reporting and basic knowledge on Turkish law and legislations related with the forensic issues. In accordance with the Turkish Criminal Code and the legislations related with the practice of medicine in Türkiye, student has to recognize the legal limitations of the medical practice in the face of medical malpractice. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the student will be able to:

- Know better the terminology of forensic medicine in medical practice
- Recognize the types of clinical forensic case
- Perform forensic examination
- Can edit a forensic report
- Can autopsy
- Organize forensic autopsy
- Know the health legislation
- Discuss the concepts of health law

MED 411 Radiology and Nucleer Medicine (3 credits)

The purpose of this course is to give a basic information about the radiological methods and radiological procedure used in general radiology. Utilization of radiology as an educational resource carries great potential. Accreditation bodies, physicians and medical students deem it important for a well-rounded medical curriculum. An overview of clerkship objectives and structure is followed by discussion on lessons learnt during the initial three years of institution. Development of assessable objectives, integration of radiology with other specialties, and supervised radiological learning tailored for undergraduate students are emphasized. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

To define the working principles of devices used in basic radiological imaging

- In emergency clinic, define which radiological imaging and where to use it.
- Learn to interpret radiographs of lung, abdomen and bone.
- Describe radiological imaging and findings in pediatric patients.
- Describe where and how interventional radiology is used.
- Describe how interventional radiology procedures are done.

The essential purpose of this course is to give sufficient knowledge on fundamental principles of commonly used nuclear medicine tests and therapeutic applications followed by their most relevant indications in routine clinical use. In addition, the basic knowledge about radiation protection and some information of nuclear medicine imaging

instrumentation will be given to the students. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Distinguish between the major forms of radioactive decay.
- Have an understanding of radiation protection basics in related to different types of radiation.
- Have an understanding of the principle of developing radiopharmaceuticals, labeling radionuclides with different chemicals.
- Have an understanding of underlined pathophysiological processes of commonly used diagnostic and therapeutically nuclear medicine applications.
- Describe common nuclear medicine tests and their indications in the most relevant diseases.
- Describe the main features and mode of operation of gamma cameras and PET scanner.

MED412 Anesthesiology and Reanimation (3 credits)

The purpose of this course is to teach trainees the basic theoretical knowledge and practical applications on anesthesia, intensive care and pain issues. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course, the students will be able to:

- Demonstrate the ability to assess a patient in the preoperative period and formulate a basic management plan
- Demonstrate the ability to take a focused history and physical examination, including anesthetic history and airway exam
- Develop a plan for preoperative investigations and interpret these investigations
- Understand and explain the risks and benefits associated with regional versus general anesthesia
- Develop an approach to acute resuscitation including appropriate fluid therapy
- Develop an approach to perioperative pain management, intensive care patients and the care of the post-op patients.
- Demonstrate competency in airway management and other procedural skills relevant to the perioperative period

MED 413 Rational Use of Drugs (3 credits)

The purpose of this course is to teach students how to write out a prescription in accordance with the rules of pharmacology and that is supported by rational data; to teach detecting patient's problem (communicating with patients and their relatives and provide them with the right information), explaining the rational pharmacotherapy, examining the effectiveness of drugs, how to apply the drug doses (I.V. injection, I.V. infusion, subcutaneous injection and local administration applications). *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Write a prescription in accordance with the rules of pharmacology and that is supported by rational data
- Grasp the patient's problem (communicating with patients and their relatives and provide them with the right information),
- Explaining the pharmacotherapy (decide on a rational pharmacotherapy),
- Examining the effectiveness of drugs, how to apply the drug doses (IV. Injection, IV. Infusion, subcutaneous injection and local administration applications).
- Write a complete and correct prescription by using personal drug list

MED421 General Surgery (10 credits)

The purpose of this course is to gain information on the general surgical disease and related issues. It Provides general information about general surgery, explains the pathophysiological basis of diseases, their diagnosis and surgical treatments, teaches the treatment principles for the pre-operative, post-operative and injured individuals. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

- At the end of this course, the students will be able to:
- Demonstrate the ability to obtain an accurate surgical history.
- Demonstrate knowledge and understanding of common surgical problems.
- Understand the indications for, and the limitations of, essential diagnostic studies used to evaluate patients with surgical problems.
- Evaluate and assess patients with surgical diseases.
- Understand and possibly perform various basic procedures, such as: venipuncture, placement of intravenous catheter, insertion of urethral (Foley) catheter, insertion of nasogastric tube, removal of surgical drains, closure of surgical incisions, removal of suture/staples, dressing changes
- Understand how to and possibly apply specific protocol in the operating room (scrubbing, gowning, gloving, prepping and draping)

MED422 Pediatric Health and Diseases (10 credits)

The purpose of this course is to gain information on the pediatrics and related issues. It provide basic knowledge and skills of pediatrics. The purpose of the pediatric clerkship is to provide the medical student with the knowledge and clinical experience necessary to develop basic skills in the evaluation and management of health and disease in infants, children and adolescents. The core pediatric clerkship is an introduction to the care of healthy children and emphasizes those aspects of pediatrics, which should be understood and mastered by all physicians, regardless of ultimate career goals. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Demonstrate the ability to generate an age-appropriate differential diagnosis based on the interview and physical examination.
- Describe the components of a pediatric health supervision visit including health promotion and disease and injury prevention, the use of screening tools, and immunizations for newborns, infants, toddlers, school aged children, and adolescents.
- List the differential diagnosis for common symptoms or patient presentations such as abdominal pain, abnormal growth pattern, ALTE, respiratory distress, jaundice, vomiting, diarrhea, wheezing, and seizures.
- Describe the clinical features of common acute and chronic medical conditions such as asthma, anemia, atopic dermatitis, AD/HD, bronchiolitis, Kawasaki disease, cellulitis, cerebral palsy, child abuse, croup, dehydration, diabetes, strep pharyngitis, meningitis, epilepsy, urinary tract infection, osteomyelitis, gastroenteritis, gastroesophageal reflux, otitis media, viral URI.

  Demonstrate an ability to perform an age-appropriate history and physical examination in children of all ages.
- Interpret the results of common diagnostic tests with an emphasis on age related norms.
- Understand and possibly perform various basic procedures, such as: venipuncture, placement of intravenous catheterinsertion of urethral (Foley) catheterinsertion of nasogastric tuberemoval of surgical drains, placement of nasogastric tube.

MED423 Gynecology and Obstetrics (10 credits)

The purpose of this course is to gain information on the gynecology, obtetrics and related issues. It provides sufficient knowledge, skills to diagnose and treat gynecological, and obstetrics diseases as expected from a medical doctor. The student will recognize the value of routine health surveillance as part of health promotion and disease prevention. Student demonstrate the ability to perform an accurate pelvic exam in a sensitive manner and properly obtain specimens to detect sexually transmitted infections. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Develop competence in the medical interview and physical examination of women and incorporate ethical, social, and diverse perspectives to provide culturally competent health care.
- Explain the normal physiologic changes of pregnancy including interpretation of common diagnostic studies.
- Know the methods of protection against infectious diseases
- Describe examination techniques and common problems in obstetrics.
- Demonstrate knowledge of intrapartum care.
- Demonstrate knowledge of postpartum care of the mother and newborn.
- Describe menstrual cycle physiology, discuss puberty and menopause and explain normal and abnormal bleeding.
- Demonstrate knowledge of common benign gynecological conditions.
- Formulate a differential diagnosis of the acute abdomen and chronic pelvic pain.
- Demonstrate knowledge of perioperative care and familiarity with gynecological procedures.

MED424 Family Medicine I (3 credits)

The purpose of this course is to protect and improve individual, family and community health; The aim of this course is to meet the patient at the primary level in accordance with the principles of medical ethics, to take anamnesis, to make an examination, to plan the diagnosis and treatment, to evaluate the emergencies, to provide the necessary knowledge, skills and attitudes to put referral indications. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Perform general and detailed physical and mental examinations
- Pre-diagnoses based on the anamnesis and physical examination findings, selects the necessary diagnostic tests to test the preliminary diagnoses and make differential diagnosis
- Makes a differential diagnosis by evaluating the results of anamnesis, physical examination and diagnostic tests and diagnoses at the primary level.
- Plan treatment at primary level in accordance with diagnosis

MED 425 Emergency Medicine (3 credits)

The purpose of this course is to gain essential emergency medicine knowledge. Students should integrate the knowledge they have obtained in medical school so far to focus on evaluation and treatment of acute presentations. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the students will be able to:

- Describe frequent medical presentations and their evaluation and treatment.
- Diagnose and treat frequently encountered surgical problems
- Perform emergency surgical procedures like placement of thoracal tube, tracheotomy, lumbar punction, blood-gase analysis, and intubation.
- Applicate casting and bandages for common orthopedic problems
- Perform suturing of the wounds and their appropiate care

MED426 Internal Diseases (11 credits)

The purpose of this course is to gain information on the internal medicine and related skills of internal medicine clinics. This rotation theoretical battery is in line with the previously given clinical course information; to synthesize, update and consolidate the internal medicine information obtained from different branches, teach and practice history taking and basic physical exam rules in the clinic, ensure that the students can formulate an appropriate differential diagnosis and effective treatment plans, teach how to reach necessary resources to combine the symptoms and clinical findings. *Prerequisites: MED321, MED322, MED323, MED324,MED326 and For foreign students; pass The Turkish Language Exam.*

At the end of this course the student will be able to:

To develop the physical examination and clinical skills required of a medical student in general internal medicine practice, including the ability interpret information relative to normal and abnormal structure, function and physiology.

- To apply historical and clinical information for problems solving to advance the health of the patient.
- To develop the psycho-social and communication skills and competencies that are required to communicate with, and treat a wide diversity of patients in acute, outpatient and institutional settings.
- To develop the ability to research medical literature and scientific resources for information that affects the patient's condition, treatment and outcomes and the ability to evaluate and apply scientifically valid information to maximize the outcome of the patient.
- Performing a physical examination for a patient in a logical, organized, respectful, and thorough manner, giving attention to the patient's general appearance, vital signs, and pertinent body regions.

Curriculum Phase V

MED519 Neurology (4 credits)

The purpose of this course is to gain knowledge and skills about clinical neurology topics. A complete and reliable history, a complete neurological examination and some specific diagnostic tests (EEG, EMG) are necessary to evaluate neurological disease. Students acquire the ability to recognize and interpret neurological symptoms (such as disorders of consciousness, sense disorders, balance disorders, motor function and autonomic dysfunction) and they learn how to treat them. *Prerequisites: Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Recognize common neurological disease.
- Elicit a general and focused neurological history.
- Generate a differential diagnosis for common neurological complaints.
- Perform and interpret a neurological examination.
- Demonstrate a basic understanding of the common indications and interpretations for neurological diagnostics (e.g., EEG, EMG, lumbar puncture, CT and MR imaging).
- Recognize and treatment to neurological emergencies

MED 520 Cardiovascular Surgery (2 credits)

The purpose of this course is to learn of cardiac valvulopathies, e.g. mitral valve disease, aortic insufficiency, etc. Students understand difference of biologic and mechanic valvular prosthesis. They learn cyanotic and acyanotic congenital heart disease e.g. ASD, VSD, TOF, TGA, etc. Students acquire essential knowledge on the cardiopulmonary bypass. They understand atherosclerotic heart disease, coronary artery bypass surgery and cardiovascular emergencies. Students learn general vascular problems including varicose veins, limb ischemia.

Prerequisites: Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.

At the end of this course the students will be able to

- Learn of cardiac valvulopathies, e.g. mitral valve disease, aortic insufficiency, etc.
- Describe the difference of biologic and mechanic valvular prosthesis.
- Describe the cyanotic and acyanotic congenital heart disease e.g. ASD, VSD, TOF, TGA, etc
- Describe the essential knowledge on the cardiopulmonary bypass.
- Describe atherosclerotic heart disease, coronary artery bypass surgery and cardiovascular emergencies
- Learn of general vascular problems including varicose veins, limb ischemia.

MED 521 Chest Diseases (5 credits)

The purpose of this course is to learn diagnose and treatment of the respiratory diseases. Practical sessions aim to teach the evaluation of respiratory symptoms and findings, principles of physical examination so that a proper dialogue between the physician-to be and patient could establish. Respiratory diseases are the most common diseases that physician can come across during clinical practice. *Prerequisites MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to

- Diagnose and treatment of the respiratory diseases.
- Understand the evaluation of respiratory symptoms and findings,
- Describe the principles of physical examination so that a proper dialogue between the physician-to be and patient could establish.
- Define and treatment respiratory diseases that are the most common diseases physician would come across during clinical practice.
- Define spirometric examination and evaluation of the results.

MED 522 Thorasic Surgery (2 credits)

The purpose of this course is to diagnose and treat diseased or injured organs in the thorax. It mainly includes the diseases of the lungs in which a general practitioner has to know and recall main pathologies. This clerkship aims to teach practical methods for diagnosis and major rules of clinical approach to a patient with thoracic trauma. *Prerequisites: MED401, MED411, MED412, MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to

- Diagnose and treat diseased or injured organs in the thorax.
- Describe diseases of the lungs in which a general practitioner has to know and recall main pathologies.
- Describe practical methods for diagnosis and major rules of clinical approach to a patient with thoracic trauma.
- Describe chest tube application
- Describe lung biopsy procedures

MED523 Dermatology (5 credits)

The purpose of this course is to provide a learning environment for the student to develop basic dermatology skills. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to

- Obtain a relevant dermatological history,
- Perform physical examination of the integumentary system
- Describe accurately morphology of lesions and eruptions on patients and treatment them

MED 524 Ear, Nose and Throat (5 credits)

The purpose of this course is to teach about ear, nose, throat, head and neck region, covered by auditory, vestibular system, facial nerve, salivary glands, face region, paranasal sinuses, nasopharynx, oral cavity, oropharynx, hypopharynx, larynx anatomy, physiology, and diagnosis and treatment of diseases that they will encounter in their professional life. Students learn basic audiology knowledge and audiometry devices and the basic examination methods. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Describe the clinical anatomy of ear, nose, throat, head and neck region, covered by auditory, vestibular system, facial nerve, salivary glands, face region, paranasal sinuses, nasopharynx, oral cavity, oropharynx, hypopharynx, and larynx.
- Define physiology of hear in normal and pathological condition,
- Recognize common disease of ear nose and throat
- Describe basic audiology knowledge, audiometry devices and the basic examination methods.
- Define the technique and indications of trachea and laryngotomy
- Describe the management of endotracheal tube

MED 525 Infectious Diseases (5 credits)

The purpose of this course is to the acquisition of knowledge regarding etiology, diagnosis, laboratory findings, clinical characteristics and treatment modalities of infectious diseases. Understanding how a patient's social history (travel, HIV risk factors, exposures) can have a significant impact on the differential diagnosis and management ofinfections, antibiotic selection and therapy including familiarity with major classes, choosing appropriate antibioticsand monitoring for antibiotic toxicities are learned. Exposure to a broad range of major syndromes including community and hospital-acquired pneumonia, infective endocarditis, cellulitis, urinary tract infections and the evaluation of fever, appropriate use of diagnostic services including gram stain and culture, antimicrobial sensitivitytesting and other standard microbiology lab techniques, understanding basic principles of infection control are described. Approach to critically ill patients and immunosuppressed patients, as well as an understanding of their specific spectrum of diseases are discussed. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Recognize bacterial, viral, fungal or parasitic infections.
- Define regarding etiology, diagnosis, laboratory findings, clinical characteristics and treatment modalities of infectious diseases.
- Define differential diagnosis and management of infections, antibiotic selection and therapy in infectious disases.
- Describe community and hospital-acquired pneumonia, infective endocarditis, cellulitis, urinary tract infections and the evaluation of fever,
- Desribe appropriate use of diagnostic services including gram stain and culture, antimicrobial sensitivity testing and other standard microbiology lab techniques,
- Define basic principles of infection control such as contact or respiratory isolation and contact tracing, exposure to critically ill patients and immunosuppressed patients, as well as an understanding of their specific spectrum of diseases.

MED 527 Neurosurgery (5 credits)

The purpose of this course is to train medical student to become proficient in diagnosis and treating neurosurgical emergencies. The students shall also learn the general outline of neurosurgical pathologies, the diagnostic work up differential diagnosis and treatment options. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Recognize common neurosurgical conditions presentations.
- Preparation of the neurosurgical patient for the operation
- Generate a differential diagnosis for common neurological complaints.
- Perform and interpret a neurological examination, localize a lesion based on clinical information and neurological examination.

- Demonstrate a basic understanding of the common indications and interpretations for neurological diagnostics (e.g., EEG, EMG, lumbar puncture, CT and MR imaging, angiology, pathological examinations).
- Develop a practical approach to the evaluation and management of common neurological complaints.
- Describe emergency neurosurgical conditions.

MED530 Pediatric Surgery (2 credits)

The purpose of this course is to integrate pediatric surgical knowledge, attitudes and skills already acquired in the first 4 years of medical school into the clinical discipline, follow-up of healthy children and practice current diagnostic and therapeutic approaches with guidance in common medical and surgical disease situations. Preoperative preparation, surgery and postoperative care (history, physical examination, laboratory, differential diagnosis) in children with pediatric surgical problems are discussed in overview. The principles of general surgery are discussed with emphasis on physiology of the pediatric population, especially in the neonatal period as a different model from those of adults. The necessity of a unique approach is underlined. Children with common congenital anomalies, surgical pathologies, especially those with associated anomalies requiring surgery are discussed focusing on treatment modalities. Students are encouraged to observe hospitalized children and outpatients, learn disease prevention, early diagnosis and treatment strategies and provide support for the patient and the family. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Integrate pediatric surgical knowledge, attitudes and skills already acquired in the first 4 years of medical school into the clinical discipline,
- Follow-up of healthy children and practice current diagnostic and therapeutic approaches with guidance in common medical and surgical disease situations.
- Describe preoperative preparation, surgery and postoperative care (history, physical examination, laboratory, differential diagnosis) in children with pediatric surgical problems are discussed in overview.
- Describe the principles of general surgery with emphasis on physiology of the pediatric population, especially in the neonatal period as a different model from those of adults.
- Describe children with common congenital anomalies, surgical pathologies, especially those with associated anomalies requiring surgery focusing on treatment modalities.

MED 531 Physical Medicine and Rehabilitation (5 credits)

The purpose of this course is to acquire knowledge about physical medicine and rehabilitation. Students submit case reports and attend clinic inservices. In a clinical setting, students treat patients and work with experienced clinicians who provide mentoring and consultation for case reviews, physical therapy techniques, approach to a patient with head and spinal injury, connective tissue and rheumatic diseases, pain neurophysiology, electrodiagnosis, walking aids and other orthotic devices. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Describe physical therapy techniques,
- Define approach to a patient with head and spinal injury, connective tissue and rheumatic diseases, pain neurophysiology, electrodiagnosis, walking aids and other orthotic devices.
- Describe critically ill from the diagnosis of the illness to the organization of the necessary treatment together and grasping the importance of this process.
- Develop basic knowledge and skills about concept of rehabilitation, concept of quality of life, neurologic and orthopaedic deficiencies and physical examination,
- Describe diagnosis and treatment of musculoskeletal pain and rheumatic diseases
- Define the methods of electrotherapy and massage.

MED532 Plastic and Reconstructive Surgery(2 credits)

The purpose of this course is to gain ability to identify and examine common problems of plastic surgery with emphasis on: basic techniques and principles of plastic surgery (i.e. obtaining a fine line scar, closure of skin wounds, skin grafting, skin flaps, Z-plasty, reconstructive ladder); maxillofacial injuries (i.e. initial management, soft tissue injuries, facial fractures); congenital anomalies and pediatric plastic surgery (i.e. cleft lip and palate, congenital melanocytic nevi, vascular anomalies). *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Analyzing problems, understanding decision making and problem solving processes by integrating knowledge related with plastic surgical disorders in pediatric and adult periods.
- Gaining competencies in basic clinical and invasive skills
- Understanding patient, disease and health care process management
- Effective communication with patients, their relatives and health team; being open to collaboration and team work
- Taking care of professional, societal and individual values, and develop behaviors accordingly.

MED534 Urology (2 credits)

The purpose of this course is to make students an integral part of the adult urology service, including both inpatient and outpatient activities, under the direction of the physicians. They will be expected to take part in diagnostic and therapeutic endeavors under staff direction. This is a survey clerkship of urology that exposes a student to general and specialty based urology (genitourinary oncology, female neurourology, pediatric urology, endourology, and minimally invasive surgery, infertility, erectile dysfunction and pediatric urology). During the clerkship, students learn the evaluation, diagnosis, and treatment of the common diseases of the genitourinary tract. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Define diagnosis, and management of the common diseases of the genitourinary tract and surgical interventions related with them.
- Describe urological diseases and perform urologic examination,
- Describe and evalaute urological symptoms and signs, to plan diagnostic laboratory and radiologic investigations,
- Explain the basic treatment algorithms,
- Define the urolgic emergencies and basic treatment approaches.

MED535 Ophthalmology (4 credits)

The purpose of this course is to teach medical students sufficient ophthalmology to enable recognition of common eye complaints and their etiology as well as recognition of less common but life or sight threatening emergencies presenting as eye findings. This course provides knowledge about various eye diseases, systemic diseases and their relationships with eye, basic medical and surgical treatments and ocular emergencies. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*
At the end of this course the students will be able to:

- Demonstrate the ability to initially assess and manage common ophthalmic problems
- Demonstrate the ability to rapidly recognize and initiate management of ocular emergencies and trauma.
- Describe a systematic, prioritized approach diagnosing common ophthalmic presentations.
- Distinguish those ophthalmic conditions requiring immediate referral to an ophthalmologist.
- Take a focused history and perform a physical examination for patients presenting with common ocular symptoms.
- Develop a working differential diagnosis and management plan.
- Develop plans for investigations and interpret these investigations.
- Explain the risks and benefits of investigations and treatments.
- Demonstrate competency in basic diagnostic and procedural skills relevant to ophthalmic conditions

MED536 Orthopaedics and Traumatology (4 credits)

The purpose of this course is to teach students the clinical symptoms of congenital diseases often encountered in Türkiye, infections of the bones and joints, diseases of the spine and general approach to fractures of the bones. Students have to recognize the diagnostic tests and basic principles of diagnosis and treatments of emergency patients with orthopedic problems. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Apply main principles of approach to urgent patient and its stages and able to apply it.
- Apply triangular bandage and to fixate of lower extremities.
- Obtain patient history and to do physical examination.
- Inform students about taking patient history and performing physical examination and let the medical students to internalize the information by practicing it and be able to apply the information appropriately.
- Describe the diagnosis of fractures and dislocations and general approach to their treatment.
- Describe the causes, formation, clinical course and diagnosis of congenital and acquired diseases of musculoskeletal system.
- Describe the preventive approaches in congenital and acquired diseases of musculoskeletal system.
- Describe the particular approach to diseases which are problematic for public health in Turkey because of their frequency or economic burden
- Have some general information about surgical approach to certain orthopedics and traumatology conditions.

MED537 Psychiatry (4 credits)

The purpose of this course is to expose students to patients with mental illness and to prepare them to provide psychiatric care at a basic level. By the end of the rotation, students should be proficient at taking a psychiatric history and doing a mental status exam. They should also be able to formulate a biopsychosocial assessment, differential diagnosis, treatment plan, and referral to specialist and asking consultation. The clerkship places an emphasis on learning interviewing skills, team collaboration, and respect for psychiatric patients and their disorders. A special emphasis is given on psychiatric emergencies and concept of forensic psychiatry. *Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the students will be able to:

- Describe mental disorders and the "normality"of mental status.
- Taking a psychiatric history and doing a mental status exam and formulate a biopsychosocial assessment, differential diagnosis, and treatment plan.
- Define the necessary knowledge and skills to diagnose, perform differential diagnosis, examine and treat psychiatric disorders in adult population.
- Define the psychological characteristics of children and adolescents and prevalent psychiatric disorders, and to plan appropriate approaches to these problems also to make referral to specialist and asking consultation.
- Describe the psychological tests and diagnostic batteries.
- Define and plan psychiatric treatments methods and approaches.

MED 541 Cardiology (4 credits)

The purpose of this course is to gain information on the cardiology and related skills of cardiology clinics. This rotation aims to improve student's understanding of the essentials of basic clinical cardiology and cardiovascular conditions such as acute coronary syndromes, heart failures, valvular heart disease, cardiomyopathy, arrhythmias, hypertension, dyslipidemia and peripheral vascular diseases. Students will also be exposed to a wide-range of non-invasive and invasive cardiac tests, and procedures in the evaluation and management of patients with known or suspected cardiovascular diseases. *Prerequisites: Prerequisites: MED401,MED411,MED412,MED413, MED421, MED422, MED423, MED424, MED425, MED426.*

At the end of this course the student will be able to:

- Gain the necessary clinical skills in general cardiology practice
- Develop the psycho-social and communication skills and competencies that are required to communicate with, and treat a wide diversity of patients in acute, outpatient and institutional settings.
- Develop the ability to research medical literature and scientific resources for information that affects the patient's condition, treatment and outcomes and the ability to evaluate and apply scientifically valid information to maximize the outcome of the patient.
- Conduct a cardiology history
- Conduct a cardiovascular physical examination
- Assess patients with coronary artery disease, valvular heart disease, congenital heart disease, hypertension, cardiac arrhythmias, and congestive heart failure
- Demonstrate proficiency in the following: recording the electrocardiogram, venipuncture, intravenous therapy
- Demonstrate skill in medical record keeping by recording the case histories of inpatients and writing progress notes at an appropriate frequency.
  Explain the diagnosis and treatment of cardiovascular diseases.
- To develop skills in verbal presentation by presenting cases at ward rounds, in the clinic and on occasion at formal teaching conferences.

Curriculum Phase VI

MED601 Internal Medicine (10 credits)

The aim of this internship is to develop the clinical knowledge and skills related to internal medicine to evaluate the health status of adult patients and to provide problem-oriented health care. During the internship, students will acquire and demonstrate the clinical skills necessary to independently evaluate (under supervision) the condition of adult patients with common medical problems and take appropriate action accordingly. Students will acquire the skills necessary to maintain, in a appropriate format, a medical record of the inpatient or outpatient condition, including written or electronic record of history and physical examination, progress notes, procedural notes, clinical visit notes, physician's instructions and prescriptions, and evaluations and caregiving processes. In addition, they will be familiar with commonly used routine procedures such as venipuncture, bladder catheterization, arterial blood gas measurement, puncture, peripheral intravenous catheterization, stool occult blood test, ECG, nasogastric tube placement, fort he evaluaiton of the patients' condition and treatment processes. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537, MED541*

At the end of this course the students will be able to:

- To take the patient's anemnesis effectively and record the information appropriately by performing the physical examination.
- To become familiar with routine procedures commonly required for the evaluation and care of patients, including intravenous catheterization, bladder catheterization, arterial puncture, peripheral intravenous catheters, fecal occult blood tests, and electrocardiograms, insertion of nasogastric tubes, use of sterile technique, and use of universal precautions.
- To explain the knowledge of the pathophysiologic principles behind the manifestations of the disease conditions
- Demonstrate knowledge of the indications, contraindications and benefits of the common procedures such as: arterial blood gas, thoracentesis, paracentesis, lumbar puncture, and joint aspiration.
- Perform and record a through physical examination, and review the physical findings
- Develop an appropriate differential diagnosis based on collected clinical information and physical examination findings, laboratory and diagnostic tests results.
- Orally present a complete, well-organized summary of the patient's history and physical examination findings, including an assessment and plan, modifying the presentation to fit the clinical situation.
- Formulate a diagnostic and therapeutic plan for the patient based on gathered clinical information and laboratory data.

MED602 General Surgery (5 credits)

The purpose of this internship is for the student to reach the competencies expected from medical school graduates for basic surgery practices within the scope of basic knowledge of surgery. Students explain common surgical problems and describe the indications for essential diagnostic studies used to evaluate patients with surgical problems. They can perform various surgical procedures such as venipuncture, intravenous catheter insertion, urethral (Foley) catheter insertion, and nasogastric tube placement, closure of surgical incisions, suture removal, and dressing and wound care under the supervision of their trainers. Students gain sensitivity to certain protocols in the operating room (scrubbing, gowning, gloving, prepping and draping), and can interpret when necessary by applying common laboratory and radiology tests.

Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537, MED541

At the end of this course the interns will be able to:

- Develop the skills required for surgical internship within the scope of basic surgical knowledge.
- Recognize common surgical problems and develop approaches.
- Describe the indicators used in basic diagnostic studies and the limitations of these examinations to evaluate the condition of patients requiring surgical intervention.
- Interpret radiology tests, how to take ECG and interpret basic pathologies.
- Evaluate patients with problems that require surgical intervention.
- Perform various basic procedures, such as venipuncture, placement of intravenous catheter, insertion of urethral (Foley) catheter, insertion of nasogastric tube, removal of surgical drains, closure of surgical incisions, removal of suture/staples, dressing changes, understand how to and possibly apply specific protocol in the operating room (scrubbing, gowning, gloving, prepping and draping), interpret common laboratory tests (cbc, electrolytes, blood gases, urinalysis).

MED603 Gynecology and Obstetrics (5 credits)

The aim of this internship is for the student to gain clinical experience by recognizing the basic skills in the field with the core competencies of obstetrics and gynecology. Intorns who will develop a preventive reproductive health approach, not only related to the reproductive health of female patients, will develop experience in providing reproductive health services to women in primary care.

Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532,MED534, MED535, MED536, MED537, MED541

At the end of this course, the students will be able to:

- Define and apply basic examination procedures in gynecology and obstetrics
- Describe screening of the pregnant mother, using diagnostic methods, normal and complicated pregnancy
- Describe antenatal testing procedures of the mother
- Explain a normal birth and postpartum follow-up.
- Develop approach for common gynecological problems and their treatments.
- Explain the preparation of the patient with gynecological problems for surgery and post-operative care
- Develop an approach to problems that require urgent intervention in field of obstetrics and gynecology

MED604 Pediatric Health and Diseases (10 credits)

The purpose of this internship is to the student: to provide knowledge and clinical experience to develope basic skills in evaluating health and disease in infants, children and adolescents and gaining appropriate medical approach. The internship will focus on issues related to childhood and adolescence, focusing on human developmental biology and emphasizing the impact of family, immediate environment and society on child health and well-being. According to this process, which is considered within the framework of normal growth and development, the students will learn the mechanisms of disease processes and will develop the ability to create apprpriate diagnosis and treatment plans. Additionally, the internship focuses on the impact of disease and its treatment on the developing human, and emphasizes growth and development, principles of health supervision and recognition of common health problems. The role of the pediatrician in prevention of disease and injures and the importance of cooperation between the pediatrician and other health professionals is emphasized. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537, MED541*

At the end of this course, the students will be able to:

- Describe knowledge and clinical experience necessary to develop basic skills in the evaluation and management of health and disease in infants, children and adolescents.
- Demonstrate an ability to take appropriate history and physical examination from their relatives and children in newborn and of all ages
- Conduct an interview, doing physical examination, managing medical data, communicate written and verbal information, integrating basic science knowledge, researching and reading the literature critically.
- Define problems such as prematurity, respiratory distress, jaundice, and infections. They will be able to ask spesific questions about immunization, previous hospital treatment, surgery, drug history and drug allergies, chronic diseases, growth and development. They will also be able to evaluate parental health conditions.
- Demonstrate an ability to perform the following examination skills. Appearance Interpret the general appearance of the child, including size, morphologic features, development, behaviors and interaction of the child with the parent and examiner. Vital Signs Identify variations in vital signs based on age of the patient, the presence or absence of disease, and testing modalities (e.g. Blood pressure cuff size).
- Describe the normal growth and development of the child; Comments on child's general appearance, including heigh, weight, morphological characteristics, affective development, behavior, interaction with parent and doctors. Vital signs: will be able to diagnose normal behavior patterns in children at various developmental stages. Newborns/infants: development and change of social skills; toddlers: autonomy; in school-age children: independence; adolescence: abstract thinking.
- To be able to observe and questions to evaluate child neglect and abuse/child labour, child marriage, child pregnancy.
- Define disease processes in general pediatrics. Describe the clinical features of chronic medical conditions seen in children such as: asthma, atopic dermatitis, cerebral palsy, cystic fibrosis, diabetes mellitus, epilepsy, malignancy (e.g. Acute lymphocytic leukemia and Wilms tumor), obesity, seasonal allergies, and sickle cell disease.
- Detect the signs and symptoms of common nutritional defiencies in infants and children (iron, vitamin D flüoride deficiency and inappropriate calorie) and know how to prevent them.
- Describe the rationale for childhood immunizations and current recommendations
- Describe the epidemiology, clinical, laboratory, and radiographic findings, of each of the core pediatric level conditions listed for each presenting complaint.
- Develop the ability to formulate appropriate diagnostic and therapeutic plans.
- Demonstrate the "ABC" assessment as a means for identifying who requires immediate medical attention and intervention.

MED605 Public Health (5 credits)

At the end of internship, students will get to know management studies and occupational health practices of preventive health services and disease control programs in primary care; will be able to critical reading scientific articles, interpret their results, and make evidence-based evaluation of public health using their knowledge of epidemiological research. They will gain the ability to know the community, determine the needs asssesment and plan health services accordingly for the regional health management.
Interns will gain a preventive medicine and management approach through participatory observations on control of communicable diseases, control of non-communicable diseases, women's and reproductive health, child health, immunization, health education studies and health information systems within the scope of primary care preventive service. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537,MED541*

At the end of this course the students will be able to:

- Define health care system and organization in Turkey generally
- Define techniques for evaluation of the health status and identification of the health problems of the community,
- Design and implement plans for controlling these problems, how to promote the health status of thecommunity and the general principles of preventive, curative and rehabilitative health services.
- Define quarantine status and governing a local epidemics
- Define immunization programs in the primary health settings
- Define water purification and prevention of waterborne disease in the community settings
- Apply the basic terminology and definitions of epidemiology.
- Describe a public health problem in terms of social, economic and cultural issues.
- Calculate basic epidemiology measures
- Identify key sources of data for epidemiologic purposes.
- Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
- Draw appropriate inferences from epidemiologic data.
- Identify the principles and limitations of public health screening programs.
- Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.

MED606 Emergency Medicine (10 credits)

The purpose of this course is to gain essential emergency medicine knowledge. Students should integrate the knowledge they have obtained in medical school so far to focus on evaluation and treatment of acute presentations. Students describe the importance of effective communication at all levels for patient care in the emergency department and demonstrate effective communication skills. Students appreciate the clinical challenge of managing multiple patients simultaneously, each at different stages of evaluation and treatment. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537,MED541*

At the end of this course, the students will be able to:

- Describe frequent clinical manifestations and their evaluation and develop an approach for emergency treatment.
- Diagnose and treat frequently encountered surgical problems
- Perform emergency surgical procedures like placement of endotracheal tube, tracheotomy, lumbar puncture, blood-gas analysis, and intubation.
- Applicate casting and bandages for common orthopedic problems
- Perform suturing of the wounds and their appropriate care.

MED607 Elective Rotation (Internal and Surgical Medicine) (5 credits)

The purpose of this course is to offer an extra opportunity of clinical rotation desired by the student in accordance with the future careeer planning in medical specialities. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537, MED541*

Elective Rotation-Radiation Oncology

The purpose of this course is to gain information about what cancer is and how it occurs, common cancers and therapies, radiation and radiobiology of the radiation, stereotactic radiotherapy and clinical applications, brachytherapy and clinical applications, conformal radiotherapy and clinical applications, IMRT and clinical applications, VMAT and clinical applications.

At the end of this course, the students will be able to:

- Distinguish basic concepts about radiation oncology and basic principles in clinical practice,
- Distinguish the basic concepts of Radiation Oncology,
- Gain theoretical and practical knowledge about Radiotherapy Field.
- Distinguishes clinical features of tumor and learn preparation of treatment,
- Interpret components of radiotherapy field and all related applications

MED608 Psychiatry (5 credits)

The purpose of this course is to expose students to patients with mental illness and to prepare them to provide psychiatric care at a basic level. By the end of the rotation, students should be proficient at taking a psychiatric history and doing a mental status exam. They should also be able to formulate a biopsychosocial assessment, differential diagnosis, treatment plan, and referral to specialist and asking consultation. The clerkship places an emphasis on learning interviewing skills, team collaboration, and respect for psychiatric patients and their disorders. A special emphasis is given on psychiatric emergencies and concept of forensic psychiatry. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532,MED534, MED535, MED536, MED537, MED541*

At the end of this course, the students will be able to:

- Describe mental disorders and the "normality "of mental status
- Taking a psychiatric history and doing a mental status exam and formulate a biopsychosocial assessment, differential diagnosis, and treatment plan.
- Define the necessary knowledge and skills to diagnose, perform differential diagnosis, examine and treat psychiatric disorders in adult population
- Define the psychological characteristics of children, adolescents, and prevalent psychiatric disorders, and to plan appropriate approaches to these problems to make referral to specialist and asking consultation
- Describe the psychological tests and diagnostic batteries
- Define and plan psychiatric treatments methods and approaches.

MED609 Family Medicine (5 credits)

At the end of this internship, students will gain outpatient care, preventive and health promoting medicine approach in primary health care, and will be able to follow up healthy children, immunization, and pregnant woman within the scope of family health services. Students will acquire the ability to manage patients in primary care, refer patients to appropriate specialties and health centers within scope of pre-diagnosis. They will have clinical experience in monitoring the patient in family health centers and at home, in the management of chronic patients, in communication with patients and their relatives in primary health care services, and in communication and cooperation with the health care team. *Prerequisites: MED519, MED520, MED521, MED522, MED523, MED524, MED525, MED527, MED530, MED531, MED532, MED534, MED535, MED536, MED537, MED541*

At the end of this course, the students will be able to:

- Communicates effectively with patients and their relatives and taking history for general and systems.
- Perform general and detailed physical and mental examinations
- Pre-diagnoses based on the anamnesis and physical examination findings, selects the necessary diagnostic tests to test the preliminary diagnoses and make differential diagnosis
- Makes a differential diagnosis by evaluating the results of anamnesis, physical examination and diagnostic tests and diagnoses at the primary level.
- Plan treatment at primary level in accordance with diagnosis
- Perform basic interventional procedures for diagnosis and treatment (such as catheter insertion, blood collection, vascular access, injection).

ELECTİVES

KYP001Career and Life Planning (1 credits)

The purpose of this course is to ensure that students specify their expectations for university education spend this process in a productive way and improve themselves. Make them get knowledge about occupational life and prepare for it during their education since the first years of university.

At the end of this course, the students will be able to:

- Raise the self-consciousness of students ; assist them to discover their own strengths and weaknesses During the journey from being “high school student” to being “university student” and “adult”,
- Lead the students to discover their own potentials,
- Make students realize the university life dynamics,
- Make them investigate and think about their department, make them begin specifying their career options,
- Inform them about actions to be taken before graduation to be ready for business world,
- Acquire a personal image and communucation skills,
- Introducing the concepts of time and stress management

ATA111 History of Turkish Revolution (2 credits) *(See General Education)*

This course covers the analysis of the causes and the consequences of the First World War; the searches for independence of the Turkish nation in Anatolia and salvation of the Turkish lands that were occupied after the Armistice of Montrose; the development and activities of Nationalist militias and the societies against them; the evaluation of the congress administrations that were formed after 19 May,1 919 in terms of their form and content; the structure of the Grand National Assembly and the process through which it gained legitimacy; the leadership of Turkish War of Independence; Treaty of Lausanne, and the Establishment of the Republic.

ATA112 History of Turkish Revolution (2 credits) *(See General Education) Prerequisite:ATA111*

Lausanne Peace Treaty resulting success that is being converted to a modern state via announcement of Republic, and being gained to this state a modern, convenient to development identity, and placing Atatürk’s Thought System to the memories precisely by the following revolutions of this process, so that our young people are made conscious and durable against to the threats to their personalities and to their countries.

ENG 111 English I (3 credits)

The course offers a balanced mixed of language input, skills work and oral tasks. It enriches students' topic-based vocabulary and develops their awareness of lexical patterns. In this, course students have functional language lessons, which are useful to them in their daily lives. Besides Basic English. Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts

ENG 112 English II (3 credits)

In this course, students will be able to develop their language skills. They will be able to practice all four skills. The course is a follow up to ING 111, so students will continue to learn and enhance their existing knowledge on reading and writing techniques, various grammar points and participate in listening and speaking activities. Besides Basic English,Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts.

Core 301 Academic Reading and Writing I (3 credits)

This course is designed to help students develop specific skills required for academic reading, including skimming, scanning, intensive reading, topic sentences and prediction, as well as various writing skills. Students will be given guided practice in writing skills and tasks reflecting different types of academic texts. Students will also be taught vocabulary- building strategies and given guidance in undertaking basic research. Besides Academic Reading and Writing lessons. Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts

Prerequisites: ENG111,ENG112

Core 302 Academic Reading and Writing II (3 credits)

This course is a follow-up to ENG 113. It focuses on the development of specific skills required for academic reading and writing. Students will be able to improve their writing skills through guided and free practice, planning, coherence and cohesive devices. In addition, students will learn various

vocabulary- building techniques and be given guidance in undertaking research, recording and acknowledging sources. Besides Academic Reading and Writing lessons, Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts. *Prerequisites: CORE301*

Core 303 Academic Listening and Speaking I (3credits)

This course is designed to develop essential listening and speaking skills. The listening selections and discussion activities cover a range of academic content areas such as communication, technology, business and the social sciences. Students can also develop effective learning strategies while practicing specific listening and speaking skills. The course also offers vocabulary and pronunciation practice such as stress, rhythm, and intonation to complement the instruction. Besides Academic Listening and Speaking lessons. Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts. *Prerequisite:CORE 301, CORE 302*

Core 304 Academic Listening and Speaking II (3 credits)

This course is a follow-up to ING 213. It focuses on further development of specific skills required for academic speaking and listening. Diverse listening selections include radio interviews, news reports, monologues and lectures to ensure high-level engagement and encourage discussion. Discussion activities relate to a wide range of academic content areas, including business, communication and the social sciences. The course includes intensive vocabulary and pronunciation practice to complement the instruction. Besides Academic Listening and Speaking lessons. Medical Faculty and Dentistry Faculty students are given basic medical terminology supported by medical texts. *Prerequisite:CORE 301,CORE302,CORE303*

TRD105 Turkish For Foreigners I (2 credits)

The aim of the course is to explain to students with examples the characteristic and rules of Turkish. Provides examples for the written and spoken charactersistic of the language. Develops students' receptive (listening/ reading/watching/ comprehension) and expressive (written and spoken expression) skills.

Learning Objectives

- To identify everyday expressions dealing with simple and concrete everyday needs, in clear, slow and repeated speech.
- To define speech which is very slow and carefully articulated with long pauses for me to get the meaning.
- To identify questions and instructions
- To repeat name numbers, prices and times.
- To analyze the general idea of simple informational texts and short simple descriptions, especially if they contain pictures which help to explain the text.
- To define very short, simple texts, putting together familiar names, words and basic phrases, by for example rereading parts of the text.
- To describe short, simple written instructions, especially if they contain pictures
- To recognize familiar names, words and very simple phrases on simple notices in the most common everyday situations.
- To write simple notes to friends.
- To describe where he/she lives.
- To complete forms with personal details.

- To write simple isolated phrases and sentences.
- To write short simple postcard.

TRD106 Turkish For Foreigners II (2 credits)

The aim of the course is to explain to students with examples the characteristic and rules of Turkish. Provides examples for the written and spoken charactersistic of the language. Develops students' receptive (listening/ reading/watching/ comprehension) and expressive (written and spoken expression) skills.

Learning Objectives

- To explain enough to manage simple, routine exchanges without too much effort.
- To identify the topic of discussion around self in general which is conducted slowly and clearly.
- To handle simple business in shops, post offices or banks.
- To identify the main point of TV news items reporting events, accidents, etc, where the visual material supports the commentary.
- To define short, simple messages, eg. on postcards.
- To explain short, simple texts containing the most common words, including some shared international words.
- To define texts that written in everyday language.
- To identify specific information in simple written material such as letters, brochures and short newspaper articles describing events.
- To use short letters and messages with the help of a dictionary.
- To analyze short, basic descriptions of events and activities.
- To summarize short, simple notes and messages relating to matters of everyday life.
- To describe plans and arrangements.
- To identify what he/she likes or dislikes about something.

TRD111 Turkish Language (2 credits) *(See General Education)*

The aim of this course is to study the features and grammar rules of Turkish language, to demonstrate writing and speaking abilities through samples, to improve students' understanding (reading and listening)and expression (oral and written expression) abilities, to provide familiarity with the Turkish literature aswell as world literature and culture.

Learning Objectives

- Remembering running rules and features of Turkish.
- Repeating running rules and features of Turkish.
- Repeating notation and pronunciation features of Turkish.
- Students are expected to adapt notation and pronunciation features of Turkish to their abilities.
- Students are expected to identify basic concepts of languages.
- Analysis reading ability and restructuring
- Analysis listening ability and restructuring
- Analysis following ability and restructuring
- Analysis understanding ability and restructuring
- Analysis verbal lecture ability and restructuring
- Analysis written expression ability and restructuring
- Remembering historical development of Turkish language
- Discussing current problems of Turkish Language and estimating future problems.
- Using perfect and effective Turkish.
- Critical and creative reading and thinking through Turkish written texts.
- Realizing and questioning without prejudice through Turkish written texts.

TRD112 Turkish Language (2 credits) *(See General Education) Prerequisite:TRD111*

Course explains the features and functioning rules of Turkish language; shows writing and speaking features through samples. Course improves students' understanding (listening/reading/watching/understanding) and expression (oral ve written expression)abilities. Course provides to contact to students with the Turkish literature and World Literature and Culture.

The aim of this course is to continue to study the features and grammar rules of Turkish language, to demonstrate writing and speaking abilities through samples, to improve students' understanding (reading and listening) and expression (oral and written expression) abilities, to provide further familiarity with the Turkish literature as well as world literature and culture.

Learning Objectives

- Remembering running rules and features of Turkish.
- Repeating running rules and features of Turkish.
- Repeating notation and pronunciation features of Turkish.
- Students are expected to adapt notation and pronunciation features of Turkish to their abilities.
- Students are expected to identify basic concepts of languages.
- Analysis reading ability and restructuring
- Analysis listening ability and restructuring
- Analysis following ability and restructuring
- Analysis understanding ability and restructuring
- Analysis verbal lecture ability and restructuring
- Analysis written expression ability and restructuring
- Remembering historical development of Turkish language
- Discussing current problems of Turkish Language and estimating future problems.
- Using perfect and effective Turkish.
- Critical and creative reading and thinking through Turkish written texts.
- Realizing and questioning without prejudice through Turkish written texts.