



NEAR EAST UNIVERSITY

FACULTY OF MEDICINE COURSE CATALOGUE

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This course catalogue is developed to give information about the medicine programme to all who are interested in the Near East University, Faculty of Medicine eg. future students, parents, academics, universities and institutions, bodies abroad.

The catalogue includes key information about the duration of the programme, mode of study, course description, credit and grading system etc. of the programme.

We hope you can find the necessary information to your questions about the Faculty of Medicine and the course programme.

Sincerely

Prof. Dr. Gamze Mocan

Dean

MEDICINE (MD) Programme

General Information about the Faculty of Medicine

Near East University, Faculty of Medicine was founded on 20 July, 2008. The vision of the young and dynamic faculty is to become a sought after and well respected centre in medical education and scientific research as well as health care provision. The faculty is further strengthened with its modern curriculum, research laboratories, and its hospital that was established with the best possible technology and the academic staff who can use the power of scientific education to enlighten the public and embrace the future of the public.

The faculty has two sections: English and Turkish, thus, the language of instruction is English and Turkish.

Official length of programme: 6 years (excluding one year of English preparatory class for English programme)

Mode of study: full time

Profile of the Programme and Method of Education

Organ/system based integrated system is implemented as the method of education. The curriculum is planned with a multidisciplinary approach in mind. The curriculum is divided into two sections. The first three pre-clinical years and the second three, the clinical years. During the first three years (phases), teaching in basic sciences and clinical sciences is integrated. A particular subject e.g the cardiovascular system is taught with its anatomy, physiology, biochemistry, pathology and clinical aspects in an integrated and coordinated program. In this system, the artificial border between different disciplines and the so-called pre-clinical and clinical fields is minimized. In year I, the students take courses in basic sciences. In year II, courses on human biology and basics of microbiology, and in year III, courses of physiopathology, pathology, pharmacology and clinical sciences are given. Years IV and V are the clinical clerkship period. During this period, patients from in - and out - patient clinics are examined and evaluated under supervision along with attendance to clinical lectures and seminars. Year VI is the period of undergraduate internship. In this

phase, the interns actively participate and take responsibility in patient care under the supervision of teaching staff and specialists.

Qualification Awarded

Medical Doctor (MD) (Master's Degree/ second cycle in Bologna System)

Level of Qualification

Qualifications Framework- European Higher Education Area (QF-EHEA): 3

European Qualifications Framework for Life long Learning (EQF-LLL): 7

Access requirement(s)

High School Diploma. Admission of Turkish nationals is by Placement through a nation-wide Student Selection Examination (ÖSS) administered by Assessment, Selection and Placement Centre (ÖSYM). Admissions of Turkish Cypriots is based on the Near East University Entrance and Placement exam. Admission of international students is based on their high school credentials. Proof of English Language proficiency is also required.

Qualification Requirements

280 Near East University Credits (Near East University Credit is contact hour based- <https://neu.edu.tr/administration/regulations/academic-regulations-for-undergraduate-studies/>) which is total 360 ECTS credits must be completed after being successful in the courses to become a graduate of the medical faculty.

ECTS is a credit system designed to make it easier for students to move between different countries. Since they are based on the learning achievements and workload of a course, a student can transfer their ECTS credits from one university to another so they are added up to contribute to an individual's degree programme or training. ECTS helps to make learning more student-centred. It is a central tool in the Bologna Process, which aims to make national systems more compatible.

ECTS also helps with the planning, delivery and evaluation of study programmes, and makes them more transparent (http://ec.europa.eu/education/ects/ects_en.htm) .

Converting US College Credit Hours (semester credit hours-SCH) to ECTS

ECTS is the most commonly used credit system in Europe. The major difference between the European Credit System ECTS and the US College Credit system is that the first is based on student workload and the second on contact hours. The ECTS is oriented towards the time required for a student to meet the intended study outcomes, while the U.S. system is more oriented towards the time a faculty member needs to teach.

Here is an example of conversion of credits from ECTS to Semester Credit Hours for a college or university in the U.S.: 1.67 ECTS = 1.00 US College Credit Hours

Conversion standards may vary between higher education institutions in the U.S.

(<http://www.mastersportal.eu/articles/11110/what-you-need-to-know-about-academic-credit-systems-in-the-us.html>)

A student is required to have minimum pass grade from each course and obtain minimum 2.00/4.00 cumulative Grade point Average (cumulative GPA) .

The students who have successfully completed the programme should be able to be science-based, skilled, competent and compassionate **clinicians** prepared to meet the challenges of practicing medicine in the 21st century, and **researchers** who are prepared to conduct cutting-edge biomedical research focused on bettering the human condition and advancing the fundamental understanding of medical science.

Arrangements for transfer from another medical faculty (Recognition of Prior Learning)

A student wishing a transfer from another university: the student must prove her/his English Proficiency if s/he wishes to attend the English Section.. At the time of OSS examination the candidate's entrance score must not be less than the lowest score for admission to the Near East Medical Faculty. The transcript and course content of the applicant is examined by the medical faculty and the student is then accepted to the appropriate year of the programme.

For further details please contact:

International Student Office

Faculty of Communication, 2nd Floor
Near East Boulevard, P.O. Box 92202

Nicosia, TRNC via Mersin 10-Turkey

Phone : +90 (392) 680 20 00 (Ext:
295/143/163/424)

Fax : +90 (392) 680 20 40/43

E-mail: info@neu.edu.tr
medicine@neu.edu.tr

Examination Regulations, Assessment and Grading

In the first three years of the medical faculty, students are evaluated by MCQ (multiple choice questions) exams, laboratory exams. Performance assessment is the only evaluation method used in the 6th year. During Phases 1, 2 and 3 a Subject Committee Examination is given at the end of each subject committee. These examinations consist of a written and a practical part. At the end of Phases 1, 2 and 3 there is also a final examination. Success in each committee exam is not sufficient to pass the year; The student must also successfully complete the final examination. There is an examination of each clinical clerkship in Phase 4 and 5. In general, the assessment examination is performed as theoretical (written and oral, written or oral) and practical (written and oral, written or oral). In the examination, the student's performance during the clerkship is taken into consideration as well. In Phase 6, the student's performance is evaluated according to his/her study and enthusiasm in the wards and out-patient clinics.

Grading Scheme and Grades

| PERCENTAGE | COURSE GRADE | GRADE POINTS | |
|-------------------|-------------------------|-------------------------|-------------|
| 90-100 | AA | 4,00 | (Excellent) |
| 80-89 | BA | 3,50 – 3,95 | (Excellent) |
| 70-79 | BB | 3,00 – 3,45 | (Very Good) |
| 60-69 | CB | 2,50 – 2,95 | (Very Good) |
| 50-59 | CC | 2,00 – 2,45 | (Good) |
| 45-49 | DC | 1,50 – 1,90 | (Failed) |
| 40-44 | DD | 1,00 – 1,40 | (Failed) |
| 35-39 | FD | 0,50 – 0,90 | (Failed) |
| 0-34 | FF | 0,00 | (Failed) |

Occupational Profiles of Graduates

The graduates of Faculty of Medicine, the medical doctors, may work at hospitals as general practitioners or they may apply for a residency program to become specialist in a related area according to the rules of the related country

Programme Director

Prof.Dr. Gamze Mocan(DEAN)

Phone: 00 90 392 675 10 00

Fax: 00 90 392 675 10 50

E-mail: medicine@neu.edu.tr

Key Learning Outcomes

The student who successfully completes the program should be able to

1. Define the basic structure, development and normal mechanisms of the human in terms of molecules, cells, tissues, organs and systems.
2. Investigate the abnormal structures and mechanisms in the human body, explain and evaluate the reasons of the diseases regarding the interaction of the individual with his environment.
3. Evaluate the processes of clinical decision making and management of the diseases with the guidance of evidence based medical practices.
4. Define the concepts of health and disease in the context of individual and society; health seeking and health promotion behaviors. national health care system and administrative processes.
5. Define the research process that is basic for medical knowledge, achieve the level of foreign language required to follow the developments in that area.

6. Take the history from the patient/applicant and his relatives.
7. Perform the physical examination of the individual, evaluates the diagnostic tests, manage the diagnosis and treatment processes using appropriate procedural steps.
8. Perform the medical procedures for diagnosis, treatment and prevention of the individuals.
9. Organize and archive the data on health and diseases gathered from the individuals and the community within the medical and administrative context.
10. Plan and perform the processes for the prevention and health promotion in the context of individuals and community.
11. Plan, conduct and evaluate the results of a scientific research.
12. Apply the principles of life long learning in following up the scientific and technological developments from a professional and public perspective.
13. Fulfill his responsibilities as a medical doctor regardless of any discrimination and in the framework of professional values, ethical principles, and legislations.
14. Take part in the teamwork with his colleagues and the other health care workers for the disease prevention and health promotion of the individuals and community.
15. Advocate for the health promotion, and development of health care services for the benefits of the individuals in the community.

Courses list with Near East University credits and ECTS

Please see the attached example of the diploma supplement which is given to all graduates of our university free of charge. It is arranged in English.

The diploma supplement is a document the purpose of which is to provide sufficient independent data to improve the international “transparency” and fair academic and professional recognition of qualifications (diplomas, degrees, certificates, etc.). It is designed to provide a description of the nature, level, context, content and the status of the studies that

were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition.

COURSE OBJECTIVES AND CONTENTS:

YEAR 1

Cell Sciences I (course type: required; course code: MED 101)

Course Objective: At the end of this course students will gain knowledge about the structural properties and basic functions of organic compounds and biomolecules; structure, function and evolution of the cell; concepts of health and disease, social determinants of health, healthy life behaviours and health promotion, tobacco use and control.

Course content: Structures and reactions of organic compounds; water, solubility, acids, bases, buffers; structure and functions of biomolecules; Acid-base titration, spectrophotometry experiments; Cellular organization, evolution of the cell, structure and function of cell organelles, extracellular matrix, structure and function of DNA, chromatin, DNA replication, RNA structure and protein synthesis; concepts of well-being and disease; control of tobacco consumption.

Cell Sciences 2 (course type: required ; course code: MED 102)

Course Objective: The aim of this committee is to provide the basic concepts of histology, enzymology, energy metabolism, and genome properties in cell sciences.

Course content: This block includes basic concepts of biochemistry, medical biology and histology. All the theoretical concepts related to cell morphology, properties of enzymes which catalyze all the chemical reactions, principles of bioenergetics; cell components, organelles, genetic material and its organization cell division and anatomy will be covered.

Cell Sciences 3 (course type: required; course code: MED 103)

Course Objective: The aim of this course is to provide the basic knowledge about the intermediary metabolism, cell membrane and structure, transport, signal transduction, mutagenesis, psychological development characteristics and cognitive development theory.

Course content: Medical biochemistry: energy metabolism, synthesis of carbohydrates and nucleotides will be investigated, and laboratory work will be on oxidative enzymes and electron transport chain. Medical microbiology: cellular structures and properties of microorganisms and their importance on human health will be dealt. Sterilization, disinfection, antibiotic action and resistance mechanisms will be investigated laboratory. Physiology: homeostasis, biological membranes, body fluids, transport across the cell membrane and inside the cell, cellular communication, bioelectrical potentials, capillary fluid exchange will be lectured. These lectures are supported by laboratory practices. Biophysics: membrane diffusion, membrane models and potentials, electrical properties of membrane, ion channels, physiological control systems and fundamentals of radiation biophysics will be covered.

Cell Sciences 4 (course type: required; course code MED 104)

Course Objective: The aim of this course is to provide the basic knowledge about the intermediary metabolism, cell membrane and structure, transport, signal transduction, mutagenesis, psychological development characteristics and cognitive development theory.

Course content: Medical biochemistry focus on metabolism of amino acids, nitrogenous compounds, proteins and lipids. Laboratory practice supports the lectures. Cell cycle and control are the lectures of medical biology. DNA technology laboratories consolidate the lectures. Pharmacology lectures focus on fundamental concepts in pharmacology and toxicology. Psychology lectures include psychological development characteristics and cognitive development theory. Biostatistics lectures include the theoretical and applied statistical concepts.

Good Medical Practice 1

Course Objective: The aim is to make medical students achieve knowledge, skills and attitudes that they need to become a good doctor. Standardized patient encounters, clinical skills, ethics and professional values, clinical visits, medical humanities, evidence based medicine.

Atatürk and History of Modern Turkey (course type: required only for Turkish and Cypriot students; course code: AIT 101&102)

Course Objective: This course is for Turkish national and Cypriot students. The aim is to provide knowledge about the history in Recent Turkish history.

Course content:

Turkish Language and Literature 1 and 2 (course type: required only for Turkish and Cypriot students; course code: TURK 101&102)

Course Objective: This course is for Turkish national and Cypriot students. The aim of the course is to provide the students with knowledge and competences to use the Turkish language correctly.

Health and Exercise (course type: elective, course code: SEC 101&102)

German Language (course type: elective, course code: GER 101&102)

Russian Language (course type: elective, course code: RUS 101&102)

YEAR 2

Tissue&skeletal system (course type: required course; course code: MED 201)

Course Objective: Objectives of the tissue and skeletal system committee is to comprehend the bones and joints of the skull, vertebral column, upper, and lower extremities; learning the development and histology of the epithelium, connective tissue, cartilage and bone structures as well as the biochemistry of the epithelium, connective and adipose tissues.

Course content- This committee includes lectures and practicals concerning fundamental concepts in basic tissues, skeleton and human embryology.

Muscular and Peripheral nervous System (course type: required; course Code: MED 202)

Course objective: Gaining knowledge about the muscles with a regional approach about their origins, insersions, functions, vessels and innervations; weekly development of the embryo, and histology of the muscle and nervous system, general features of the striated muscle, motor unit, muscle-nerve endings, straight muscle and peripheral muscle physiology, synapses, physiology of the autonomic nervous system, biochemistry of the muscle, blood,

nerve, biomechanics of the muscle-skeleton, connection between the structure and function of nerve cells.

Nervous system (course type: required; course code: MED:203)

Course Objective: The structures forming the nervous system, its morphological and microscopical features as well as its function are the objectives of this committee. Sensory and motor areas of the central nervous system, their primary functions, as well as their histological structures and embryology, coding and information transfer and topographical analysis of the biomedical signals

Course content: Anatomy, physiology and microscobic structure of the nervous system. Basic physical principals of the central and peripheral nervous sytems.

Cardiology, respiratory and blood system (course type: required; course code: MED 204)

Course Objective: the students are expected to gain knowledge and skills about human circulatory system, blood tissue, respiratory system together with the embryological developments of the cells, tissues and organs, histological and anatomical structures, physiological properties, functions and mechanisms, interactions between these systems and responses of these organs, tissues and systems to internal and external changes.

Course content: basic knowledge in the related systems namely anatomy, embryology, histology and physiology of blood, cardiovascular and respiratory systems.

Gastrointestinal system and metabolism (course type: required; course code: MED:205)

Course Objective: the successful student is expected to comprehend the anatomy, embryology, histology, physiology and biochemistry of the gastrointestinal system; to learn the digestion and absorption of nutrients, and molecular mechanisms of normal human metabolism and obesity.

Course content. Normal human metabolism, anatomy, embryology, histology and physiology of gastrointestinal system.

Endocrine& Urogenital system (course type: required; course code: MED:206)

Course Objective: The organs forming the uriner and genital systems will be studied in terms of their gross and microscopic structures and functions. The endocrine system will be studied throughly including the structures forming the system, secretions of the endocrine and exocrine glands, and their functions.

Course content: the basics of anatomy, embryology, histology, biochemistry and physiology of the endocrine and urogenital systems.

Biological Basis of diseases (course type: required; course code: MED 207)

Course Objective: Covering the passive transport of the membrane, biochemical studies of the metabolic diseases, immune systems and the cells forming them, pharmaceutical effects of the medications, their absorbtion, pathological anomalies and therapies.

Course content: Introduction to medical microbiology and immunology, basic pathology, general pharmacology and clinical biochemistry, basic principles and rules of medical ethics and determinants of physician-patienr relationship

YEAR 3

Infectious Diseases (course type: required; course code: MED 301)

Course Objective: The student is expected to gain the knowledge and skills about important structural features and pathogenesis of medically-improtant microorganisms, main approaches to microbial diagnostics and treatment. Endogenous biologically active compounds and their contribution to pathological conditions. Pharmacological approach to drug mechanisms and drug interactions will be discussed.

Course content: Medically-important bacteria, bacterial pathogenesis, diagnosis and treatment, Medically-important fungi, fungal pathogenesis, diagnosis and treatment, Medically-important parasites, pathogenesis, diagnosis and treatment, Medically-important viruses, viral pathogenesis, diagnosis and treatment, Signs and symptoms in infectious diseases

Neoplasia and haemopoietic systems diseases (course type: required; course code: MED 302)

Course objectives: Aim of this subject committee is to give the basic information and approaches related to hematopoietic and immune systems, and neoplasia.

Course content: Definition and classification of neoplasia. Characteristics of benign and malignant neoplasms. Etiology of neoplasia, epidemiology of cancer, dissemination and metastasis, molecular basis of cancer. Epithelial, mesenchymal tumors, skin tumors, teratomas and tumors of the nervous systems, Allergic, immunologic and anaphylactic reactions, Hemolytic anemia, iron deficiency anemia, aplastic-hypoplastic anemias, sickle cell anemia, Hematologic malignancies, Immunopathology, Cancer biochemistry, Pharmacological basis of cancer therapy. Antineoplastic drugs. Biological effects of radiation.

Cardiovascular&respiratory systems diseases (course type:required; course code: MED 303)

Course objective: At the end of this committee, students are expected to learn basic knowledge and approach about cardiovascular and respiratory system pathologies and approach to diagnosis and treatment of those disorders.

Course content: The content of this committee includes epidemiology of cardiovascular and respiratory system disorders, pathological findings, clinical diagnosis and treatment principles as well as pharmacologic properties of commonly used drugs.

Gastrointestinal system diseases (course type: required; course code: MED 304)

Course objective: At the end of this committee students are expected to gain the basic knowledge regarding the mechanism behind the development of GIS diseases and the skills to diagnose and to treat them.

Course content: To evaluate the most common GI system disorders including the liver, bile tract and pancreas focusing on pathological, radiological, physiopathological and surgical aspect. Infectious diseases involving this system is also discussed.

Endocrine and metabolism diseases (course type:required; course code: MED 305)

Course objective: Promote understanding of the organisation of the endocrine system, Provide that students understand the pathophysiology, clinical and laboratory findings of endocrine disorders, Facilitate students to apply that understanding to the investigation and management of patients with endocrine diseases.

Course content: Pharmacological and pharmacokinetics aspects of the hormones
Clinical and laboratory features of hypophysial diseases and their treatments, The pathophysiology of the thyroid gland diseases, Clinical and laboratory features of thyroid gland diseases and their treatments Calcium and vitamin D metabolism, Vitamin deficiency
Clinical and laboratory features of parathyroid gland diseases and their treatments. The pathophysiology, diagnosis, classification and clinical features of diabetes mellitus, its acute and chronic complications, the drugs which are used in its treatment. The pathophysiology and adrenal gland diseases. Clinical and laboratory features of adrenal gland diseases and their treatments . Clinical and laboratory features of polyglandular endocrine diseases.

Neurological Sciences and Psychiatry Diseases (course type: required; course code: MED 306)

Course objective: The aim of this block is to describe the pathophysiological basis and the clinical aspects of mainly the diseases of central and peripheral nervous system and mental health, eye, ear-nose-throat, with an introduction to the principles of clinical and radiological diagnosis, differential diagnosis, pharmacological and surgical treatment.

Course Content: Pathology of infectious, vascular, degenerative and neoplastic diseases of the nervous and musculoskeletal systems; basic pharmacology of drugs affecting the central and peripheral nervous system, anesthetics, drug abuse and dependence; clinical and radiological diagnosis and pathophysiological and therapeutic principles including surgery of the neurological, psychiatric, are the major subjects of this block. In addition, rheumatological diseases, osteoporosis and main topics in physical rehabilitation, general anesthesia, ophthalmology, and ear-nose-throat disorders will be introduced.

Urogenital systems diseases (course type: required; course code: MED 307)

Course objective: The course aims to provide an education in genitourinary system and breast diseases, including their epidemiologic, etiologic, pathogenetic, clinical and pathological features. It aims to develop knowledge in normal/abnormal menstrual cycle, infertility, contraception, pregnancy and obstetrics.

Course content: Menstrual cycle, pregnancy and obstetric information, reproductive endocrinopathies, contraception and infertility. Description of sexual assault and examination of sexually abused individual, sexually transmitted diseases.- Female and male sex hormones, contraceptive medications, anabolic steroids and antiandrogenic drugs; diuretics.- Diseases of vulva, vagina, uterus and ovary, and trophoblastic tumors. Breast diseases. Basic principles of renal physiology, evaluation of kidney functions, acute and chronic renal failure, proteinuria, acid-base and electrolyte imbalances. Renal glomerular, tubulointerstitial and vascular diseases, hypertension, kidney in systemic diseases. Congenital and acquired urologic diseases, obstructive uropathies, urolithiasis. Urogenital tumors. Radiology of urogenital system and nuclear uro-nephrology.

Musculo-skeletal systems diseases (course type: required; course code: MED 308)

Course objective: The disturbances affecting musculoskeletal system, with an introduction to the principles of clinical and radiological diagnosis, differential diagnosis, pharmacological and surgical treatment. Musculoskeletal system disorders common in children and adults will be discussed.

Course content: musculoskeletal disorders common in children and adults.

Public Health- Forensic medicine-Deontology- Biostatistics (course type: required; course code: MED 309)

Course objective: At the end of this committee, students should learn basic knowledge and approach on public health, forensic medicine, medical ethics and biostatistics.

Course content: Health problems in the country, prevention from diseases, epidemiology, child, women/reproductive, occupational and environmental health, community nutrition, communicable diseases, health administration, education, promotion, healthy life skills, health economics,international health,disability, aging,chronic diseases, prevention from accidents and injuries,disaster management,-Biostatistics Content;Research planning, sampling methods,measures of associations, linear ,non-linear and logistic regression, survival analysis, evaluation of diagnostic tests-Medical Ethics Content;Ethical issues confronted at the beginning and at the end of life, research and publication,organ transplantation,genetics; clinical ethics case analysis, examination of the issues in terms of ethical and legal regulations,-Forensic Medicine Content;Foensic sciences and autopsy,

death and related issues, Asphyxia related deaths, head trauma related injuries and death, human right violation cases.

YEAR 4 (CLERKSHIPS)

Internal Medicine (course type:required; course code: MED 401)

Course objective: Students are expected to acquire and apply competencies composed of knowledge, skills and attitudes in the area of Internal Medicine.

Course content: Lectures, Clinical tutorials (small group discussions), bedside education and other practical sessions on how to evaluate the adult patient as a whole, obtain medical history, perform a physical examination, formulate preliminary/differential diagnoses, order and evaluate tests with regard to their cost-effectiveness, performance and contribution to the work-up of the disease, manage acute medical problems, manage chronic diseases, and apply preventive care measures.

Paediatrics (course type: required; course code: MED 402)

Course objective: Students are expected to learn how to evaluate and interpret growth, age-specific growth, mental and motor developmental steps, age-specific nutrition, immunization status and practices, neonatal physiological characteristics and pathological conditions, newborn care and resuscitation, normal pubertal development, and how to manage and counsel for common inherited diseases in the population. They shall be able to diagnose, treat and follow patients with common childhood diseases, take history, perform physical examination and evaluate signs and symptoms, evaluate growth, mental and motor developmental milestones, nutrition and perform immunizations, diagnose and treat common childhood diseases, diagnose and manage emergency situations and decide in what situations the patient should be referred to a pediatrician and/or to experienced medical institutions.

General Surgery (course type: required; course code: MED 403)

Course objective: At the end of this course the student is expected to define frequent surgical diseases, treatment methods, taking history from surgical patients, perform accurate physical examinations, define appropriate diagnostic procedures, gain basic surgical skills.

Course content: Basic treatment approaches to a trauma patient or a patient with shock, and will classification of burn wounds and wound healing steps, differential diagnosis in a patient with acute abdomen, differential diagnosis for frequently encountered surgical diseases, take history and perform physical examination in a surgical patient, performing basic surgical procedures (glowing, dressing change).

Obstetrics &gynecology (course type: required; course code: MED 404)

Course objective: the student is expected to define the basic knowledge and gain skills and competences about obstetrics and gynecology.

Course content: basic obstetric and gynecologic concepts, pregnancy follow up and obstetric complications, normal and operative delivery, normal reproendocrinologic cycle, reproendocrinopathies and contraception, benign and malign gynecologic pathologies, gynecologic and endocrinologic problems in adolescent and menopausal woman, infectious diseases in gynecology and screening tests, gynecologic and obstetric operations

Pharmacology (course type: required; course code: MED 405)

Course objective: at the end of this committee the student is expected to write a complete and correct prescription by using personal drug list.

Course content: Lectures include the required theoretical content for P-drug list concept and good prescription writing and making a treatment plan by using this content.

YEAR 5 (CLERKSHIPS)

Clinical Ethics (course type: required; course code: MED 501)

Urology (course type: required; course code: MED 517)

Course objective: In the end of this course our students will be able to define urological diseases and perform urologic examination, evalaute urological symptoms and signs, to plan

diagnostic laboratory and radiologic investigations, plan the basic treatment algorithms, define the urologic emergencies and basic treatment approaches.

Course content: Evaluation of the outpatient and service patients, during the period from the beginning of diagnosing to implementation of the treatment plan, to make the differential diagnosis and to learn the principles of diagnostic/treatment algorithm.

Orthopedics & Traumatology (course type: required; course code: MED 511)

Course objective: The student is expected to gain the knowledge and skills to apply diagnosis and treatment of basic musculoskeletal system diseases of the adults and children.

Course content: Introduction to locomotor system, evaluation of trauma patient, bone healing and general principles of treatment, complications of fractures, fractures of upper and lower extremity, dislocations, pediatric vertebra, septic arthritis, developmental dysplasia of hip, pes planus, deformities of the foot, peripheral nerve injuries, entrapment neuropathies, osteoarthritis, scoliosis and kyphosis, bone tumors, diabetic foot and gangrene, sports injuries, avascular necrosis.

Neurology (course type: required; course code: MED 508)

Course objective: In the end of this course the students are expected to acquire the ability to:

- Recognize common neurological disease presentations.
- Elicit a general and focused neurological history.
- 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).
- Develop a practical approach to the evaluation and management of common neurological complaints.
- Become familiar with medications used to treat neurological disorders
- Recognize and appropriately respond to neurological emergencies.

Course content: Lectures provide a knowledge about:

CNS infections, Movement Disorders, Neuroimmunology and Demyelinating Disorders, Cranial Nerve Disorders, Cerebrovascular Diseases, Peripheral Nervous System Disorders, Headaches, Diseases of Spinal Cord, Motor Neuron Disorders, Epilepsy, Muscular Disorders, Dementia, Neurological Emergencies (coma, acute stroke, status epilepticus).

Forensic Medicine (course type: required; course code: MED 506)

Course objective: This course aims to Inform students about fundamentals of forensic science and medicine, forensic medical applications in our country, forensic autopsy, forensic examination of cases and preparing medico-legal reports.

Course content: Definition of forensic science and medicine, Fundamental practices of forensic medicine and the role of physicians? in criminal cases, Pathophysiology of death and evaluation of time since death, Forensic autopsy practices.

Evidence Based Medicine (course type: rquired; course code: MED 505)

Course Objective: At the end of this course the students will be able to access and apply evidence on diagnosis and treatment, to gain knowledge and skills concerning the effective use of medical literature for the diagnosis and treatment of their future patients.

Course Content: At the end of the course the participants will gain knowledge about the philosophy of evidence-based medicine (EBM), gain knowledge about finding the evidence, acquire skills about finding the evidence, be able to define the hierarchy of evidence obtained from different survey types, obtain knowledge concerning the evaluation of morbidity and the measures derived from different study types, define the criteria about causality, gain knowledge concerning the method used in trials, acquire skills for critically appraising the experimental studies, gain knowledge concerning the method used in studies of harm, acquire skills for critically appraising the observational studies, obtain knowledge about the validity and reliability, be able to define the concepts used in life tables and survival analysis, be able to evaluate the evidence concerning prognosis, gain skills concerning the use of evidence about prognosis while making treatment choices, gain knowledge about misinterpretation of the study findings, be able to evaluate the confidence intervals, be able to formulate the H_0 and H_1 hypotheses, be able to define type 1 and type 2 errors and be able to interpret p values.

Dermatology (course type: required; course code: MED 502)

Course objective: The aim of this course is to inform medical students about the most common skin disorders and to improve students' ability to diagnose and treat these diseases.

Course content: Structure of the skin, elementary lesions, common cutaneous bacterial, viral and fungal infections, acne vulgaris and rosacea, allergic and inflammatory diseases of the skin, benign and malignant tumors of the disease, papulosquamous and bullous diseases of the skin, common pediatric dermatoses.

Physical Therapy and Rehabilitation (course type: rquired; course code: MED 513)

Course objective: Develop basic knowledge and skills about concept of rehabilitation, concept of quality of life, neurologic and orthopaedic deficiencies and physical examination, diagnosis and treatment of musculoskeletal pain and rheumatic diseases

Course content: Cerebral palsy, rehabilitation of spinal cord injuries, rheumatoid arthritis and sero-positive arthropaties, electroneurodiagnostics, orthotics, prosthetics in rehabilitation, upper extremity pain, osteoarthritis, NSAIDs, hemiplegia, multipl sclerosis, Parkinsons rehabilitation, crystal deposition diseases, neurologic rehabilitation, osteoporosis and metabolic bone diseases, sero- negative spondiloarthropaties, monitoring of musculoskeletal diseases, soft tissue rheumatism, cervical and lumbar pain, peripheral neuropathies and EMG, classification, pathophysiology and treatment of pain, principles of basic rehabilitation and quality of life, therapeutic exercises and sports medicine, degenerative joint diseases, medical treatment of rheumatic diseases, inflammatory joint diseases, physical examination of musculoskeletal system.

Nuclear Medicine (course type:required; course code: MED 509)

Course objective Course content: Introduction to nuclear medicine and role of nuclear medicine in cardiopumunary diseases, applications of nuclear medicine in nephrourology, role of nuclear medicine in oncology and endocrine diseases.

Course content: Basic principles of Nuclear medicine, Nuclear Medicine in the disorders of bone and joints, Nuclear Medicine in Endocrinology, Radiobiology, Nuclear medicine in Uronephrology, Nuclear Medicine in Cardiovascular Disease, Pulmonary Imaging, Nuclear medicine in Gastroenterological disease, Nuclear Medicine in pediatric oncology, Diagnostic Nuclear Ooncology, Radionuclide therapy, Nuclear Medicine in the Reticuloendothelial System Disorders, Nuclear Medicine in the Cerebrovascular Diseases, Clinical cases & Evaluation

Emergency Medicine (course type: required; course code: MED 504)

Course objective: To acknowledge the Emergency medicine and to gain the knowledge and skills of the disorders related to emergency medicine and apply the knowledge in practice.

Ophthalmology (course type: required; course code: MED 510)

Course objective: To provide up-to date information about ocular disorders and their treatments and to enable and gear medical students to make preliminary diagnosis, estimate the severity and differential diagnosis of ocular disorders in outpatient and emergency settings.

Course content: Ocular emergencies, strabismus, amblyopia, glaucoma, cataract, keratitis, conjunctivitis, ocular tumors, disorders of the eyelids and uveitis, medical and surgical treatment modalities of ocular disease, to systemic diseases associated with ocular disorders, the skills of using various ophthalmological instruments such as the direct ophthalmoscope and retinoscope.

Radiology (course type: required; course code: MED 515)

Course objective: The student is expected to gain knowledge and skills about evaluation trauma radiograms and chest X-Rays, modalities and procedures used in diagnostic and interventional Radiology and how to choose the appropriate radiologic algorithm.

Course content: Keys of thoracic radiology, keys of hepatobiliary - gastrointestinal system and urogenital system radiology, keys of breast radiology, radiologic approach to arthritis, radiologic approach to musculoskeletal trauma, neuroimaging, keys of cardiovascular radiology, keys of vascular and nonvascular interventional radiology, pediatric imaging, radiation safety, contrast agents and side effects.

Otorhinolaryngology (course type: required; course code: MED 512)

Course objective: The student is expected to be able to evaluate clinical findings, make differential diagnosis and treatment principles of the congenital, infectious and neoplastic diseases of the head and neck region.

Course content: Clinical anatomy of the ear, nose and throat, ear, nose and throat emergencies, epistaxis, otalgia and otorrhea, vertigo, nasal obstruction and discharge, dyspnea, neck masses, hearing losses, sore throat, facial paralysis, snoring and hoarseness.

Psychiatry and pediatric psychiatry (course type: required; course code: MED 514)

Course objective: The student is expected to learn the necessary knowledge and skills to diagnose, perform differential diagnosis, examine and treat psychiatric disorders in adult population. To define the psychological characteristics of children and adolescents and prevalent psychiatric disorders, and to plan appropriate approaches to these problems.

Course content: Introduction to psychiatry, psychiatric symptoms and mental state examination, schizophrenia and other psychoses, mood disorders, somatoform disorders, delirium, dementia and other cognitive disorders, other neuropsychiatric disorders, anxiety disorders and obsessive compulsive disorder, psychiatric disorders due to general medical conditions, alcohol and substance use disorders, eating disorders, sexual dysfunctions, psychiatric emergencies, psychosocial treatments, personality disorders, psychiatric (somatic) treatments, neurobiology of behaviour, sleep disorders, treatment practices in some cases, case discussions (bed-side), clinical rounds.

Radiation Oncology (course type: required; course code: MED 516)

Course objective: To give a basic knowledge about the evaluation of radiotherapy patients, the treatment planning and radiotherapy delivery in a radiation oncology clinic.

Course content: Radiotherapy physics, radiobiology, CNS tumors, GIS tumors, GUS tumors, gynecological cancers, lymphomas, breast cancer, thorax tumors, pediatric tumors, head-neck cancers, sarcomas, palliative radiotherapy.

ELECTIVE COURSES (CLERKSHIPS)

- 1- Cardiovascular surgery:** Student is expected to learn about surgical management of cardiovascular diseases that they may encounter in primary healthcare setting. Also they will learn how to diagnose and treat arterial and venous system disorders.
- 2- Plastic reconstructive and aesthetics Surgery:** The aim of this course is to give information about the field and patient spectrum of Plastic Reconstructive and Aesthetic Surgery (PRAS), to teach how to diagnose the conditions related to PRAS

and to refer the cases diagnosed to be the conditions related to PRAS, and to lecture basic topics of PRAS.

- 3- **Pediatric surgery:** The aim of this course is to define the surgical diseases of respiratory system, gastrointestinal system and genitourinary system and etiology of abdominal pain in children and to teach the management of trauma in children.
- 4- **Neurosurgery :** Student is expected to gain basic information about cerebrovascular surgery and spinal surgery, intracranial hypertension and herniations, intracranial tumors, head injuries, neurosurgery, and the peripheral nerve surgery.
- 5- **Anesthetics**

YEAR 6 (INTERNSHIP YEAR)

Emergency Medicine (course type: required; course code: MED 601)

To comprehend the Emergency medicine and to provide the knowledge and skills of the disorders which are the most presented to emergency medicine and to apply the knowledge in practise.

Paediatrics (course type: required; course code: MED 603)

Interns under supervision are responsible from active care of pediatric patients during pediatric internship education. They are expected to evaluate growth and development of the children from neonate to adolescent and perform the vaccines, Get the medical history, perform physical examination and evaluate signs and symptoms of the children. Recognise common illnesses in children and know their therapy. Recognise emergency situations in children and perform their first emergency therapies and pediatric life support. Evaluate and know the referred conditions to pediatrician and/or reference hospital.

Internal Medicine (course type: required; course code: MED 604)

Under the supervision of attending doctors, interns are expected to acquire and apply the following in both outpatient and inpatient settings: Obtain medical history, perform physical examination, formulate preliminary/differential diagnoses, order and evaluate tests with regard to their cost-effectiveness, performance and contribution to the work-up of the disease, manage acute medical problems, manage common chronic diseases, apply preventive care measures.

Obstetrics and gynecology (course type: required; course code: MED 602)

Interns under supervision are expected to take obstetrical and gynecological history/anamnesis and perform obstetrical and gynecological examination. Diagnose pregnancy, perform follow up of a pregnant patient without an obstetrical risk factors, interpret common complications of pregnancy, Interpret labor/delivery and their complications, classify malignant processes of the female genital tract and differentiate their signs, conduct the process of informing the patient and her family about invasive procedures and obtaining an informed consent.

Public Health (course type: required; course code: MED 606)

The aim of this course is to help students to gain the attitudes and behaviours of medical profession for providing preventive and curative health services to everyone in an equitable manner, and for promoting health in society; and to gain the necessary knowledge and skills for realizing the causes that adversely affect public health, for evaluating the health-related biological, psychological and social events together, for assessing the patient with her environment, and for revealing the health problems by using epidemiological methods also conducting an epidemiological research.

Electives

The student can select this course from any of the medical courses.

NEAR EAST UNIVERSITY FACULTY OF MEDICINE COURSES AND DURATIONS IN ONE

ACADEMIC YEAR

PHASE I (YEAR 1)

| Name of the course/committe/clerkship/internship | Duration | |
|--------------------------------------------------------------------------------------------|------------|--|
| MED 101 CELL SCIENCE I | 7 WEEKS | |
| MED 102 CELL SCIENCE II | 9 WEEKS | |
| MED 103 CELL SCIENCE III | 7 WEEKS | |
| MED 104 CELL SCIENCE IV | 9 WEEKS | |
| AIT 101 ATATÜRK AND HISTORY OF MODERN TURKEY 1 (NOT COMPULSORY FOR INTERNATIONAL STUDENTS) | 1 SEMESTER | |
| AIT 102 ATATÜRK AND HISTORY OF MODERN TURKEY 2 (NOT COMPULSORY FOR INTERNATIONAL STUDENTS) | 1 SEMESTER | |
| ENG 101 WRITTEN AND ORAL COMMUNICATION SKILLS 1 | 1 SEMESTER | |
| ENG 102 WRITTEN AND ORAL COMMUNICATION SKILLS 2 | 1 SEMESTER | |
| TURK 101 TURKISH LANGUAGE AND LITERATURE 1 (NOT COMPULSORY FOR INTERNATIONAL STUDENTS) | 1 SEMESTER | |
| TURK 102 TURKISH LANGUAGE AND LITERATURE 2 (NOT COMPULSORY FOR INTERNATIONAL STUDENTS) | 1 SEMESTER | |
| ELECTIVE COURSES | 1 SEMESTER | |

Semester break:2 weeks

PHASE II (YEAR 2)

| Name of the course/committe/clerkship/internship | Duration | |
|------------------------------------------------------------|-----------------|--|
| MED 201 TISSUE AND SKELETAL SYSTEMS | 3 WEEKS | |
| MED 202 MUSCLE AND PERHIPHERAL NERVOUS SYSTEMS | 5 WEEKS | |
| MED 203 NERVOUS SYSTEM | 6 WEEKS | |
| MED 204 CARDIOVASCULAR, RESPIRATORY SYS. AND BLOOD SYSTEMS | 5 WEEKS | |
| MED 205 GASTROINTESTINAL SYSTEM | 4 WEEKS | |
| MED 206 ENDOCRINE AND UROGENITAL SYSTEMS | 4 WEEKS | |
| MED 207 BIOLOGICAL FUNDEMENTALS OF DISEASES | 4 WEEKS | |

Semester break: 2 weeks

PHASE III

| Name of the course/committe/clerkship/internship | Duration | |
|------------------------------------------------------------------|-----------------|--|
| MED 301 INFECTIOUS DISEASES | 5 WEEKS | |
| MED 302 NEOPLASIA AND HEMATOPOIETIC SYSTEMS DISEASES | 3 WEEKS | |
| MED 303 CARDIOVASCULAR AND RESPIRATORY SYS. DISEASES | 4 WEEKS | |
| MED 304 GASTROINTESTINAL SYSTEM DISEASES | 3 WEEKS | |
| MED 305 ENDOCRIN AND METABOLISM DISEASES | 3 WEEKS | |
| MED 306 NEUROLOGICAL SCIENCES AND PSYCHIATRY DISEASES | 4 WEEKS | |
| MED 307 UROGENITAL SYSTEMS DISEASES | 4 WEEKS | |
| MED 308 MUSCULO-SKELETAL SYSTEMS DISEASES | 2 WEEKS | |
| MED 309 PUB. HEALTH, FORENSIC MEDICINE DEONTOLOGY, BIOSTATISTICS | 5 WEEKS | |

Semester break: 2 weeks

PHASE IV (CLERKSHIP YEAR)

| Name of the course/committe/clerkship/internship | Duration | |
|---------------------------------------------------------|-----------------|--|
| MED 401 INTERNAL MEDICINE | 9 WEEKS | |
| MED 402 PEDIATRICS | 9 WEEKS | |
| MED 403 GENERAL SURGEY | 9 WEEKS | |
| MED 404 OBSTERTRICS AND GYNECOLOGY | 9 WEEKS | |
| MED 405 CLINICAL PHARMACOLOGY | 1 WEEK | |

Semester break: 1-2 weeks according to the schedule

PHASE V (CLERKSHIP YEAR)

| Name of the course/committe/clerkship/internship | Duration | Begins – ends |
|---------------------------------------------------------|-----------------|------------------------------------|
| MED 501 CLINICAL ETHICS | 1 WEEK | Changes according to student group |
| MED 502 DERMATOLOGY | 3 WEEKS | Changes according to student group |

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|----------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------------|
| <u>ELECTIVES</u> CARDIOVASCULAR SURGERY PLASTIC&RECONSTRUCTIVE SURGERY PEDIATRIC SURGERY ANESTHETICS NEUROSURGERY | 2 WEEKS | Changes according to student group |
| MED 504 EMERGENCY MEDICINE | 2 WEEKS | Changes according to student group |
| MED 505 EVIDENCE BASED MEDICINE | 2 WEEKS | Changes according to student group |
| MED 506 FORENSIC MEDICINE | 1 WEEK | Changes according to student group |
| MED 507 INFECTIOUS DISEASE | 2 WEEKS | Changes according to student group |
| MED 508 NEUROLOGY | 3 WEEKS | Changes according to student group |
| MED 509 NUCLEAR MEDICINE | 1 WEEK | Changes according to student group |
| MED 510 OPHTHALMOLOGY | 3 WEEKS | Changes according to student group |
| MED 511 ORTHOPEDICS AND TRAUMATOLOGY | 3 WEEKS | Changes according to student group |
| MED 512 OTORHINOLARYNGOLOGY | 3 WEEKS | Changes according to student group |
| MED 513 PHYSICAL MEDICINE AND REHABILITATION | 3 WEEKS | Changes according to student group |

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|------------------------------------------------------|-------------------------|------------------------------------|
| MED 514 PSYCHIATRY + CHILD AND ADOLESCENT PSYCHIATRY | 3 WEEKS | Changes according to student group |
| MED 515 RADIOLOGY | 3 WEEKS | Changes according to student group |
| MED 516 RADIATION ONCOLOGY | PLEASE SEE THE PS BELOW | Changes according to student group |
| MED 517 UROLOGY | 3 WEEKS | Changes according to student group |

PS: The duration of Radiation Oncology lectures is 1 semester on each tuesday at 15:00-17:00.

Semester break:1 week

PHASE VI (INTERNSHIP YEAR)

| Name of the course/committe/clerkship/internship | Duration | Begins – ends |
|--------------------------------------------------|----------|------------------------------------|
| MED 601 EMERGENCY MEDICINE | 1 MONTH | Changes according to student group |
| MED 602 OBSTETRICS AND GYNECOLOGY | 2 MONTHS | Changes according to student group |
| MED 603 PEDIATRICS | 2 MONTHS | Changes according to student group |
| MED 604 INTERNAL MEDICINE | 2 MONTHS | Changes according to |

| | | |
|-----------------------------|----------|------------------------------------|
| | | student group |
| MED 606 PUBLIC HEALTH | 2 MONTHS | Changes according to student group |
| MED 607 GENERAL SURGEY | 1 MONTH | Changes according to student group |
| MED 605 ELECTIVE COURSE I* | 1 MONTH | Changes according to student group |
| MED 615 ELECTIVE COURSE II* | 1 MONTH | Changes according to student group |

PS: The duration for the internship year rotations is stated in "month/s".

The internship year begins on July 1 and ends on 30 June of the following year (for example: 1 July 2018-30 June 2019) duration is 12 months.

*ELECTIVE COURSES LIST (DURATION =ONE MONTH)

| ELECTIVES | |
|--------------------------------|--|
| EMERGENCY MEDICINE | |
| OBSTETRICS AND GYNECOLOGY | |
| PEDIATRICS | |
| INTERNAL MEDICINE | |
| PUBLIC HEALTH | |
| GENERAL SURGERY | |
| FORENSIC MEDICINE | |
| ANATOMY | |
| ANESTHESIOLOGY AND REANIMATION | |
| NEUROSURGERY | |
| BIOPHYSICS | |

| | | |
|--|--------------------------------------------------|--|
| | PEDIATRIC SURGERY | |
| | CHILD AND ADOLESCENT PSYCHIATRY | |
| | DERMATOLOGY | |
| | INFECTIOUS DISEASES AND CLINICAL MICROBIOLOGY | |
| | PHYSICAL MEDICINE AND REHABILITATION | |
| | PHYSIOLOGY | |
| | THORACIC DISEASES | |
| | OPHTHALMOLOGY | |
| | HISTOLOGY AND EMBRIOLOGY | |
| | CARDIOVASCULAR SURGERY | |
| | CARDIOLOGY | |
| | OTORHINOLARYNGOLOGY | |
| | NEUROLOGY | |
| | NUCLEAR MEDICINE | |
| | ORTHOPEDICS AND TRAUMATOLOGY | |
| | PLASTIC AND RECONSTRUCTIVE SURGERY | |
| | RADIOLOGY | |
| | RADIATION ONCOLOGY | |
| | PYSCHIATRY | |
| | SPORTS MEDICINE | |
| | MEDICAL BIOCHEMISTRY | |
| | MEDICAL BIOLOGY | |

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|--|---------------------------------------------------|--|
| | MEDICAL EDUCATION AND INFORMATICS | |
| | MEDICAL GENETICS | |
| | MEDICAL MICROBIOLOGY AND CLINICAL MICROBIOLOGY | |
| | MEDICAL PATHOLOGY | |
| | UROLOGY | |
| | BIOSTATISTICS | |