Faculty of Medicine
Course Description

٠٥٠٠٢٢٢ The Endocrine System ٣ credit hours

This course covers the endocrine system from the standpoints of anatomic and histologic structure, hormones including their structures, functions, mechanisms of action receptors, and their metabolism in addition to the endocrinologic disorders including hyperactivity or hypoactivity, immune-mediated diseases, benign and malignant tumors and pharmacological properties of hormones and drugs used in the treatment of endocrine diseases. The course is concluded by studying the clinical aspects of the endocrine system including signs, symptoms and disease presentation.

٠٥٠٠٢٥١ The Digestive system ٦ credit hours

This course covers the digestive system including the alimentary tract, liver, billiary trea and the pancreas from the standpoints of anatomic and histologic structure and function including motility, secretions, digestion, chemistry of saliva and gastric secretions, bile, pancreatic secretions, and digestive enzymes. It also covers diseases of the digestive system including infections, congenital and acquired malformations, vascular disorders, peptic ulcer, tumors of the digestive system, immune mediated diseases, and drugs used in the treatment of these diseases as well as the clinical aspects of the system including signs, symptoms, and disease presentation.

٠٥٠٠٢٨١ Skin and The Locomotor system ٣ credit hours

This course covers the study of the locomotor system and skin including the anatomy and histology of nerves, muscles and skin; the physiology of nerves and muscles, the biochemistry of muscle contraction and neurotransmission. It also covers the diseases of the skin, muscles and nervous tissues including bacterial, viral, parasitic and fungal infections, together with disturbances of metabolism and genetics of the locomotor system and tumours of muscles, bones and joints. The course covers also the therapeutics of such diseases and their clinical aspects including signs and symptoms, and disease presentation.

٠٥٠٠٣١١ The Nervous System and Special Sciences ٨ credit hours

This course covers the study of the nervous system and special senses from the stand points of anatomy, histology and organization of the central and peripheral nervous system including the brain, spinal cord, and nerves including their motor and sensory functions in addition to the study of vision, hearing and chemical sense, cerebral cortex and intellectual functions, neurotransmission including its chemistry, receptors and neurotransmitters, and chemistry of vision. It also covers diseases of the central nervous system and organs of special senses including bacterial, viral, fungal and parasitic infections, brain edema, hydrocephalus, vascular disturbances, trauma, congenital malformations, tumors, degenerative and immune-mediated disorders and the drugs used for the treatment of these diseases. The course is concluded by covering the clinical aspects of disease that affect the central and periphenl nervous system as well as special senses.

٠٥٠٠٣٣١ The Cardiovascular System ٥ credit hours

This course covers the study of the cardiovascular system from the standpoints of anatomic and histologic structure of heart, veins, arteries and capillaries, functions of the cardiovascular system including the physiology of the heart, membrane properties, heart contractility and its mechanisms, electrical conduction and electrocardiography, heart as a pump and cardiac cycle, blood flow and its disorders, cardiac output, blood pressure regulation, cardiac effort, circulatory disorders, heart failure, and cardiac enzymes and their relationship to myo-cardiac infarction. It also covers diseases of the heart and blood vessels including infections, athersclerosis, hypertension, ischemic heart diseases, congenital heart diseases and treatment of cardiovascular diseases. The course is concluded by the study of the clinical aspects of the cardiovascular system including signs, symptoms, and disease presentation.

٠٥٠٠٣٤١ The Respiratory System ٤ credit hours

This course covers the respiratory system from the standpoints of its anatomic and histologic structure, functions including respiration and its mechanisms and characteristics, airway resistance, gas diffusion in the lung, and gas exchange and transport, pulmonary function tests, chemical properties of oxygen, its transport and abnormalities and respiratory alkalosis and acidosis. It also covers diseases of the respiratory tract including infections, vascular, obstructive, occupational and immune-mediated diseases, tumors of the respiratory tract and pharmacologic treatment of these diseases. The course is concluded by covering the clinical aspects of the system.

٠٥٠٠٣٦١ The Genitourinary system ٦ credit hours

This course covers the study of the male and female genitourinary systems from the standpoints of anatomic and histologic structure and function including renal physiology which covers glomerular filtration, renal tubule functions, acid base balance and the role of the kidney in that. It also covers the physiology of the reproductive system of males and females, hormones and their functions as well as diseases of the genitourinary system and breast including infections, benign and malignant tumors, inflammation, placental disorders, gestation, infertility, renal failure and the treatment of these diseases. The course is concluded by covering the clinical aspects of the system including the study of signs, symptoms, and disease presentation.

٠٥٠٠٣٧١ Blood and the lymphatic system ٤ credit hours

This course covers the study of cellular elements of lymph, blood and the histology of both central and peripheral lymphatic systems, including bone marrow, thymus, spleen and lymph nodes. It also covers the production of blood cells, the physiology of tissue fluids, lymph and plasma including the functions of these fluids and cells, bleeding, coagulation, chemistry of blood and lymph together with the structure of haemoglobin, its functions and haemoglobinpathies, plasma proteins, immunological properties of plasma globulins, complement, immunological mechanisms, the diseases that affect blood and the lymphatic system including disturbances of red blood cells, various types of anaemia; disturbances of white blood cells including their numbers and functions; leukaemias and lymphomas; disturbances of bleeding and coagulation; diseases of the spleen and thymus; therapeutics of blood and lymphatic diseases. The course also covers the clinical aspects of hematologic and lymphoreticular diseases.

٠٥٠٠٤٠١ Introduction to clinical medicine and medical ethics ٩ credit hours

This course covers communication skills with patients and their relatives and the skills of history taking and physical examination of the different body systems and the study of signs and symptoms of the diseases that affect the body through clinical training, lectures and seminars over an eight week period. The course also covers the topics of medical informatics and medical ethics through lectures, seminars and practical training.

٠٥٠٠٥٠٣ Selected Medical Specialties ٩ credit hours

This course covers specialized topics in medicine including radiology and nuclear medicine, dermatology, forensic medicine and toxicology, and family medicine in a two-week clinical training period for each of these four specialties. This is achieved through lectures and seminars which cover the principles of imaging and its clinical applications in the diagnosis of diseases and injuries of the different body systems utilizing simple x-rays, computerized tomography, nuclear resonance, ultrasonography, and radioisotope scanning.
The course also covers the study of the disease of the skin and its appendages and pigmentation disorders involving causes, signs and symptoms and therapeutic interventions as well as their epidemiology through two weeks of clinical training, lectures and seminars.
In addition, the course covers topics in forensic medicine and toxicology including legal aspects in medical practice, medicolegal accidents, medicolegal death, medicolegal responsibilities as well as criminal investigations and methods of identification of the dead and the alive through two weeks of programmed clinical training in the clinic, postmortem rooms and the court, lectures and seminars. It also covers occupational, agricultural, industrial and medical poisoning.
Finally, the course covers family medicine for two weeks involving the training of students to provide comprehensive medical care for all family members utilizing available resourses and consultative services with the aim to reach to a quality care. The course also covers subjects related to community health including environmental health, school health, immunization programs as well as medical records and medical informatics through a two-week programmed clinical training, lectures and seminars.

٠٥٠٠٦٠١ Elective Clinical Training ٩ credit hours

This course covers clinical training for a period of eight weeks in a specialty the student elects to be spent in a recognized medical center for training inside or outside Jordan.

٠٥٠١١١٠ Introduction to Physiology ٩ credit hours

This course covers the definition of physiology and the systems involved. It includes the study of basic principles of physiology that involve subjects like, physiological units, biologival membranes, transport, homeostasis, body fluids, membrane potentials, hemodynamics and laws of blood flow.

٠٥٠١١١٢ Introduction to Biochemistry ٢ credit hours

This course covers the relationship between organic chemistry and biochemistry, structure of water and its properties including polarization and ionization, acids, bases, and buffers. It also covers the study of the structure and classification of carbohydrates, lipids, and amino acid, structure and characteristics of proteins, hemoglobin, fibrous proteins, enzymes including their general properties, classification, kinetics, mechanisms of inhibition and regulation.

٠٥٠١٢١٣ Biochemistry ٣ credit hours

This course covers nucleic acids and nucleotides and gene structure. It also covers energy metabolism including cellular bioenergetics, tricarboxylic acid cycle and oxidative phosphory lation. The course also covers carbohydrate and lipid metabolisim, nitrogen, amins, acids in addition to nutritions and vitamins.

٠٥٠١٢١٤ Principles of Genetics and Molecular Biology ٢ credit hours

This course covers the study of chromosomes and heredity, genetic linkage, chemistry of the gene, mitosis and meiosis, gamete formation, mechanisms of transfer of genetic traits, genetic code and its transcription and translation, protein synthesis, mutations, genetic map, sex determination, sex-linked characteristics, human genetic disorders and their diagnosis and management, and genetic engineering.

٠٥٠٢١٠٩ Anatomy & Embryology ٤ credit hours

This course covers introduction in gross anatomy to all parts of the body (upper limb & lower limb thorax, abdomen, head & neck, and neuroanatomy) including terms, regions, muscles, blood vessels, and nerves as well as to an introduction to the nervous system. This course also covers general embryology including the development of embryo starting from the zygote, the fetal membranes, placenta and congenital malformations.

٠٥٠٢١١١ General Histology ٤ credit hours

This course covers the cell with respect to structure, function and classification, epithelial cells, cell structure of endocrine glands, peripheral blood, connective tissues, bone and cartilage, muscles, nerves, blood vessels, lymphoreticular tissue and skin and appendages.

٠٥٠٣٢٠١ Introduction to Pharmacology ٢ credit hours

This course covers the study of general characteristics of drugs and their historical development, drug formulation and their sources, drug receptors, pharmacodynamics including mechanisms of action, therapeutic doses, drug absorption, distribution in the body, metabolism and excretion, drug reactions and toxicity, clinical evaluation of drugs, prescription, and drug information sources. It also covers chemotherapy including types, mechanisms action, pharmacodynamics and side effects of antimicrobial agents and anticancer drugs.

٠٥٠٤٢٠٤ Introduction to Microbiology ٣ credit hours

This course covers the study of microorganisms with respect to classification and structure of bacteria, viruses, parasites, and fungi, their characteristics, growth and replication, and their

susceptibility to antimicrobials. It also covers the study of the types of microorganisms that cause human disease, and their pathogenesis, methods of diagnosis and prevention and control.

٠٥٠٤٢٠٥ Introduction to Pathology ٢ credit hours

This course covers the study of cell injury including its types, causes, and mechanisms, cellular adaptation to growth and differentiation, inflammation including its types and mechanisms, cellular healing, infections and its causes and characteristics, tumors and neoplasia, types of cancer, its mechanisms of occurrence, characteristics and epidemiology, and circulatory disorders including edema, congestion, thrombosis, infarction and shock.

٠٥٠٤٢٠٦ Immunology ٢ credit hours

This course covers the immune system including types of cells and tissues, their distribution in the body, their functions, growth, development and differentiation, antigens and their characteristics, antibodies and their types and functions, serologic reactions, the complement system and its functions and activation, interaction between cells in the generation of the immune response, and immunologic disorders including autoimmunity, hypersensitivity, tumor immunology, immunology of transplantation, and immunodeficiency diseases.Also is covered the drugs used in the treatment of these diseases.

٠٥٠٥٢٠١ Community Medicine ٣ credit hours

This course covers the topics of population science, primary health care, mother and child health, ecology, health care systems and health planning, It also covers the concept of environmental health, study the sources of pollution, classification of pollutants; including water, air, soil and occupational pollutants, the relationship between pollution and work and social behavior, the effect of pollution on health and methods of prevention of pollution and equipment used in this regard.

٠٥٠٥٣٠١ Epidemiology and biostatistics ٣ credit hours

This course covers analytical and descriptive epidemiology, the epidemiology of infectious and chronic diseases; transmission of infectious diseases, descriptive statistics, the theory of probabilities, levels of significance, hypothesis testing, regression and correlation and the use of statistics in epidemiology.

٠٥٠٦٥٠١ Special Surgery ١٣.٥ credit hours

This course covers specific surgical specialties including Orthopaedics, and traumatology, through the study of signs and symptoms, etiology and means of clinical, laboratory and radiological diagnoses, in addition to ways of medical and surgical treatment including physiotherapy and rehabilitation for a period of four weeks of clinical training including lectures seminars and group discussions. The course also covers Ophthalmology through the study of eye diseases and trauma and refractive errors and ways of their diagnosis and medical and surgical treatment including corrections of refractive errors, through a two week period of clinical training including lectures, seminars and group discussions.
The course covers as well urology involving diseases that affect the urinary system including infections, obstructive lesions, tumors and anomalies as well as methods of diagnosis and treatment through a two week clinical training, lectures and seminars. Additionally, the course covers newurosurgery including injuries of the central and peripheral nervous system, and diseases such as tumors and congenital anamolies through a two week clinical training, lectures and seminars.
The final part of the course covers diseases of the ear, nose and throat together with disturbances of hearing, speech and balance, through the study of signs and symptoms, etiology and means of clinical, laboratory and radiological diagnoses, in addition to audiotesting and testing of balance, together with the ways of treatment of such disturbances both medicaly and surgicaly, and prevention and control, through a two week period of programmed clinical training including lectures, seminars and group discussions.

٠٥٠٧٤٠١ General Surgery ١٣.٥ credit hours

This course covers the study of surgical diseases that affects the different body systems, including history taking and physical examination to reach into a diagnosis and the surgical methods used for their treatment and patient follow up after surgery through clinical training, lectures and seminars in addition to clinical training in anesthesia and critical care.

٠٥٠٧٦٠١ General Surgery-٢ ٥ credit hours

This course involves the training of students in outpatient clinics, specialized units and operating rooms covering the study of the clinical manifestations of diseases, their diagnosis and treatments in addition to postoperative followup. The course is delivered through clinical training, tutorials and seminars.

٠٥٠٧٦٠٢ Emergency medicine, anesthesia and critical care ٥credit hours

This course involves the training of students in emergency and accident medicine covering the study of diseases and trauma requiring the provision of urgent care. This includes the study of clinical manifestations, their diagnosis and management. The course also involves training in the field of anestheia including preparation of patients before surgery, methods and types of

anesthesia and drugs used and patient recovery. Students are also trained in the intensive care unit.

٠٥٠٨٣٠١ Behaverial Sciences ٣ credit hours

This course covers theories of behavior, stress physiology , interventions to change behavior, life cycle, personality , motivation, biologic basis of behavior, sleep, social determinents of behavior, disorders of cognition, memory, mood and psychotic disorders. In addition, it covers perception and thinking, violoence and suicide, human sexuality, death and dying, immune and risk behavior, physician patient relationship, eating and obesity, anxiety and dissociative disorders and mental health.

٠٥٠٨٤١٢ Medicine – ١ ١٣.٥ credit hours

This course covers through twelve weeks of clinical training, lectures and seminars the study of diseases that affect humans including methods of history taking and performing the physical examination to reach into a diagnosis by studying these signs and symptoms. Additionally the course covers the therapeutics and interventions used in the treatment of such diseases.

٥٠٨٤١٣ Clinical Neurosciences ٩ credit hours

This course covers the study of diseases that affect the central and peripheral nervous system including infections, tumors, degenerative diseases and aging-related illnesses. It also covers history taking and performing proper physical to reach into their diagnosis through programmed clinical training for four weeks, lectures and seminars.
The course covers as well psychiatric disorders affecting humans, their etiology, mechanisms symptoms and signs, diagnosis and dealing with the psychiatric patient and psychiatric interventions. It also covers psycho-organic connection in certain diseases, pediatric and geriatric disorders, drug abuse and narcotic and alcohol addiction, and psycho-sexual disorders. These topics are covered through clinical training for eight weeks in psychiatric outpatient clinics and hospitals through lectures, seminars and group discussions , following the problem solving approach.

٥٠٨٦٠١ Medicine - ٢ ٩ credit hours

This course involves the training of students in outpatient clinics ans specialized units covering the study of the clinical manifestutions of diseases, their diagnosis and treatment. The course id delivered through clinical training, tutorials and seminares.

٥٠٩٥٠١ Pediatrics – ١ ١٣.٥ credit hours

This course covers child development and growth both mentaly and physically since birth, pediatric care and prevention and control of diseases of childhood. It also covers the study of diseases affecting children their, etiology, mechanisms, symptoms and signs, diagnosis,

prevention and treatment of these diseases medicaly or surgicaly through eight weeks of programmed clinical training, lectures, seminars and group discussions.

٥٠٦٩٠١ Pediatrics - ٢ ٩ Credit hours

This course covers pediatric diseases, methods of treatment and caring for the child through programmed clinical training in outpatient clinics, Intensive Care Unit, and Neonatal Intensive Care Unit, seminars and group discussions. Students are trained to deal with pediatric diseases throug a problem solving approach.

٥١٠٥٠١ Gynaecology and Obstetrics - ١ ٩ Credit hours

This course covers the study of diseases affecting the female reproductive system, infertility, menstrual disturbances; their signs and symptoms, pathogenesis, methods of diagnosis and evaluation, medical and surgical treatment, follow up, epidemiology, prevention and control. It also covers methods of caring for the pregnant during pregnancy, labor and after delivery, normal and instrumental delivery and ceasorean section. In addition, diseases of pregnancy, fertility, ectopic and pathological pregnancy, birth control and contraception are covered. The course is executed through programmed clinical training, lectures seminars, and group discussion.

٥١٠٦٠١ Gynaecology and Obstetrics ٩ Credit hours
This course covers the study of gynecological diseases, pregnancy, antenatal care, family planning and contraception through programmed clinical training for a period of four weeks in outpatient clinics, delivery room, obstetrics operation room in addition to seminars and group discussions.