حوضي من عدن ... إلى عمان البلقاء





AL-BALQA APPLIED UNIVERSITY FACULTY OF MEDICINE

Study Plan Structure: Bachelor Degree in Doctor of Medicine (M.D)

Name of the Degree: Doctor of Medicine (M.D)

Study plan qualifying student to obtain a Bachelor's degree in Doctor of Medicine (M.D).

This study plan is to be applied on students admitted to the Faculty of Medicine as of the academic year 2015/2016.

The distribution of courses and credit hours for being eligible to be awarded the M.D. degree will be as follows:

Components of the Study Plan:

The study plan of the Doctor of Medicine (**M.D**) is composed of (256) credit hours distributed as shown below:

First	University Requirements	27 Credit hours
Second	Requirements in Basic Sciences	17 Credit hours
Third	Requirements in Basic Medical Sciences	82 Credit hours
Fourth	Requirements in Clinical Sciences	130 Credit hours
Total		256 Credit hours

Coding System:

Academic level	Cognitive	program	Field of	specialty	Year level	Area	Sequence No.
3	1	5	0	1	2	0	4

1- Specialty Codes (Department Codes):

Code	Specialty
00	Shared Course (more than one department)
01	Physiology and Biochemistry
02	Anatomy and Histology
03	Pharmacology
04	Pathology, Microbiology and Forensic Medicine
05	Family and Community Medicine
06	Special Surgery
07	General Surgery
08	Internal Medicine
09	Pediatrics
10	Obstetrics and Gynecology
11	Anesthesia and Intensive Care
12	Radiology and Nuclear Medicine

2- Course Codes:

Course Code	Course Title
0	Introduction
1	Neuroscience System
2	Endocrinology and Metabolism
3	Cardiovascular System
4	Respiratory System
5	Digestive System
6	Genitourinary System
7	Blood and Lymphatic System
8	Musculoskeletal System and Skin
9	Special Cases

First:-

University Requirements:

(27) Credit hours distributed as shown below:

A- Obligatory University Requirements: (21) credit hours consisting of:

Course No.	Course Name	Prerequisite	Weekly Teaching Hours		Credit Hours
			Theory	Practical	
35003101	Arabic Language (1)	-	3	-	3
35003102	Arabic Language (2)	35003101	3	-	3
35004101	English Language (1)	-	3	-	3
35004102	English Language (2)	35004101	3	-	3
35005101	Computer Skills (1)	-	2	3	3
35001101	Military Sciences	-	3	-	3
35002100	National Education	-	3	-	3
	Total	-	20	3	21

B- Elective University Requirements: (6) credit hours, student should choose of the below courses which posed by other departments:

Course No.	Course Name	Credit hours
36001101	Communication Skills	3
36002102	Principles of Psychology	3
36003103	Jordanian Community	3
36004104	Sports for All	3
36005105	Islamic Education	3
36006106	Administrative and Economic Concepts	3
36007107	Agriculture in Jordan	3
36008108	Environment and Society	3

All students must pass the exams in Arabic, English Language and Computer Skills. Who fails in any of these exams should register for remedy courses outside the study plan.

Faculty Requirements:

(229) obligatory credit hours distributed as shown below:

A. Requirements in Basic Sciences.

B. Requirements in Basic Medical Sciences.

C. Requirements in Clinical Sciences.

(17) Credit Hours

(82) Credit Hours

(130) Credit Hours

<u>A- Requirements in Basic Sciences:</u> (17) Credit hours including the following courses:

Course No.	Course Name	Weekly Teaching Hours		Credit Hours
		Theory	Practical	
30203104	General Biology	3	-	3
30203114	General Biology/Practical	-	3	1
30206106	Chemistry for Medical Student	4	-	4
30206131	Organic Chemistry for Medical Students	3	-	3
30201106	Medical Physics	3	-	3
30801101	Computer Skills (2) for Students from Scientific	2	3	3
	Faculties			
	Total	15	6	17

<u>B- Requirement in Basic Medical Sciences:</u> (82) Credit hours including the following courses:

Course No.	Course Name	Weekly Teaching/Training Hours		Credit Hours
		Theory	Practical (Lab/Clinical Training/Field Visits)	
31502110	Anatomy and Embryology	2	3	3
31502111	General Histology	1	3	2
31501100	Introduction to Physiology	2	-	2
31501102	Introduction to Biochemistry	2	-	2
31501221	Biochemistry	3	-	3
31503203	Introduction to Pharmacology	3	-	3
31504204	Introduction to Microbiology	3	-	3
31504205	Introduction to Pathology	2	3	3
31501261	Principles of Genetics and Molecular	3	-	3
	Biology			
31505201	Community Medicine	3	-	3
31505204	Epidemiology and Biostatistics	2	3	3
31505291	Public Health	3	-	3
31500231	Cardiovascular System	4	3	5
31500271	Blood and Lymphatic System	3	3	4
31500251	Digestive System	5	3	6
31504301	Introduction to Medical Immunology	2	-	2
31500381	Musculoskeletal System and Skin	4	3	5
31500341	Respiratory System	4	3	5
31500321	Endocrine System	3	3	4
31500311	Nervous System and Special Senses	5	6	7
31500361	Genitourinary System	5	3	6
31508301	Behavioral Sciences	3	-	3
31505391	Health Economics and Policies	2	-	2
	Total in Credit Hours	69	13	82

Total in Contact Hours	69	39	108

<u>C- Requirements in Clinical Sciences:</u> (130) Credit hours including the following courses:

Course No.	Course Name	Clinical Training in Weeks	Credit Hours
31500401	Introduction to Clinical Medicine and Medical	8	8
	Ethics		
31500402	Medicine (1)	10	10
31507403	General Surgery (1)	10	10
31507412	Clinical Neurosciences	3	3
31508401	Anesthesia and Intensive Care	3	3
31506481	Orthopedic Surgery	4	4
31509491	Primary health Care/ Medicine		3
31509502	Pediatrics (1)	8	8
31508512	Psychiatry	4	4
31506511	Ophthalmology	2	2
31506541	Otolaryngology	2	2
31506561	Urology	2	2
31508582	Dermatology	2	2
31500591	Emergency Medicine	2	2
31504592	Forensic Medicine and Toxicology	1	1
31512593	Diagnostic Radiology	2	2
31505594	Family Medicine	4	4
31503562	Obstetrics and Gynecology (1)	8	8
31503590	Therapeutics	-	3
31509595	Primary Health Care/Pediatrics	-	3
31500691	Elective Clinical Training	8	8
31508602	Medicine (2)	8	8
31507603	General Surgery (2)	8	8
31507602	Pediatrics (2)	8	8
31510662	Obstetrics and Gynecology (2)	8	8
31500692	Graduation Project		6
	Total	115	130

Guidance Plan for Registration Purposes (Annual Plan):

First Year

First Semester			Second Semester		
		Credit			
Course No.	Course Name	Hours	Course No.	Course Name	Hours
30203104	General Biology	3	31502110	Anatomy and Embryology	3
30203114	General Biology/Practical	1	31502111	General Histology	2
30206106	General Chemistry for		31501100	Introduction to Physiology	2
30200100	Medical Students	4			
30201106	Madical Physics		30206131	Organic Chemistry for	3
30201106	Medical Physics	3		Medical Students	
30801101	Computer Skills (2)	3		University Req. Course	3
	University Req. Course	3		University Req. Course	3
	Total	17		Total	16

Summer Semester				
Course No.	Credit Hours			
31501102	Introduction to Biochemistry	2		
	University Req. Course	3		
	University Req. Course	3		
	Total	8		

Second Year

First Semester		Second Semester			
		Credit	Course		Credit
Course No.	Course Name	Hours	No.	Course Name	Hours
31501221	Biochemistry	3	31500231	Cardiovascular System	5
31504204	Introduction to Microbiology	3	31500271	Blood and Lymphatic System	4
31504205	Introduction to Pathology	3	31500251	Digestive System	6
	Introduction to		31501261	Principles of Genetics and	
31503203	Pharmacology	3		Molecular Biology	3
31505201	Community Medicine	3			
	University Req. Course	3			
	Total	18		Total	18

Summer Semester			
Course No.	Course Name	Credit Hours	
31505291	Public Health	3	
31505204	Epidemiology and Biostatistics	3	
	University Req. Course	3	
	Total	9	

Third Year

First Semester		Second Semester			
Course No.	Course Name	Credit Hours	Course No.	Course Name	Credit Hours
31500381	Musculoskeletal System and Skin	5	31500311	Nervous System and Special Senses	7
31500341	Respiratory System	5	31500361	Genitourinary System	6
31500321	Endocrine System	4	31508301	Behavioral Sciences	3
31504301	Introduction to Medical Immunity	2	31505391	Health Economics and Policies	2
	University Req. Course	3			
	Total	19		Total	18

Fourth Year Include Summer Semester

	Fourth Year		
		Clinical Training	
Course No.	Course Name	in Weeks	Credit Hours
31500401	Introduction to Clinical Medicine and Medical Ethics	8	8
31508402	Medicine (1)	10	10
31507403	General Surgery (1)	10	10
31500412	Clinical Neurosciences	3	3
31506481	Orthopedic Surgery	4	4
31511401	Anesthesia and Intensive Care	3	3
31508491	Primary Health Care / Medicine	-	3
	Total	38	41

Fifth Year Including Summer Semester

	Fifth Year		
		Clinical Training	
Course No.	Course Name	in Weeks	Credit Hours
31509502	Pediatrics (1)	8	8
31510562	Gynecology and Obstetrics (1)	8	8
31508512	Psychiatry	4	4
31506511	Ophthalmology	2	2
31506561	Urology	2	2
31506541	Otolaryngology	2	2
31508582	Dermatology	2	2
31500591	Emergency Medicine	2	2
31504592	Forensic Medicine	1	1
31512593	Diagnostic Radiology	2	2
31505594	Family Medicine	4	4
31503590	Therapeutics	-	3
31509595	Primary Health Care/Pediatrics	-	3
Total		37	43

Sixth Year Including Summer Semester

	Sixth Year		
		Clinical Training	
Course No.	Course Name	in Weeks	Credit Hours
31500691	Elective Clinical Training	8	8
31508602	Medicine (2)	8	8
31507603	General Surgery (2)	8	8
31506902	Pediatrics (2)	8	8
31510662	Gynecology and Obstetrics (2)	8	8
31500692	Graduation Project (Research Project)	-	6
	Total	40	46

Important Notes:

^{*} Students who's Arabic Language is not a mother language can take special courses in Arabic (Arabic courses for Non-Arabic speakers).

^{*} Military Sciences Course is required from Jordanians only. The Non-Jordanian students who have not registered for this course must register and study another course from the optional University requirements courses.

^{*} Make sure to have a copy of the regulations governing the awarding of M.D. degree in faculty of Medicine at Al-Balqa Applied University and read it very carefully for your own benefit.

Course Description

Course Number: 30206131	Course Name: Organic Chemistry for	3 Credit Hours	
30200131	Medical Students		
Course Prerequisites: Gene			
<u>-</u>	•	for medical students. It emphasizes on	
structural, physical and ch	emical properties of the or	ganic compounds. It covers saturated	
		aromatic compounds, stereochemistry,	
substitution and elimination r	eactions for alkyl halides, alco	hols, phenols, ethers, aldehydes, ketones,	
carboxylic acid derivatives an	d amines.	-	
-			
Course Number:	Course Name:	(4) Credit Hours	
30206106	General Chemistry for		
	Medical Students		
This course is aiming to give	the basic fundamentals of chen	nistry. It provides a short review of the	
		oduction to the bonding theories,	
chemical reactions, explaining	g the principles of the chemical	calculations, energy changes, reaction	
		eids, bases, nuclear and organic	
chemistry.	-	_	
Course Number:	Course Name:	(3) Credit Hours	
30201106	Medical Physics		
In this course the following m		mensional motion, two dimensional	
		ne ideal gas, Archimedes' principle,	
· · · · · · · · · · · · · · · · · · ·	ulli's equation, optics and radia		
Course Number:	Course Name:	(3) Credit Hours	
30203104	General Biology	(3) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
This course covers, water and		nent and organisms, large bio-molecules	
		objects, nucleus, mitosis and meiosis,	
		netics of viruses, bacteria, fungi, cellular	
	1 0		
metabolism and enzymes, membranes, the origin of species. This course will also cover the general aspects of the following systems: digestive, cardiovascular, immune, reproductive, nervous and			
aspects of the following syste	ms: digestive, cardiovascular, i	immune, reproductive, nervous and	
	ms: digestive, cardiovascular, i	immune, reproductive, nervous and	
circulatory.			
	Course Name:	(1) Credit Hour	
circulatory. Course Number: 30203114			
Course Number: 30203114 Prerequisite 30203104.	Course Name: General Biology Lab	(1) Credit Hour	
circulatory. Course Number: 30203114 Prerequisite 30203104. This course will covers; the n	Course Name: General Biology Lab nicroscope and its usage to stud	(1) Credit Hour ly the cell, chemical aspects of animal	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the n and plant cells, anatomy of the	Course Name: General Biology Lab	(1) Credit Hour ly the cell, chemical aspects of animal and cell division.	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the n and plant cells, anatomy of th Course Number:	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name:	(1) Credit Hour ly the cell, chemical aspects of animal	
Circulatory. Course Number: 30203114 Prerequisite 30203104. This course will covers; the n and plant cells, anatomy of th Course Number: 31502110	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name: Anatomy & Embryology	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours	
Circulatory. Course Number: 30203114 Prerequisite 30203104. This course will covers; the n and plant cells, anatomy of th Course Number: 31502110 This course covers introduct	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the b	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours ody parts (upper & lower limbs, thorax	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the banatomy of the nervous systems.	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours body parts (upper & lower limbs, thorax tem) including; terms, regions, muscles.	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. The	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the because anatomy of the nervous systis course also covers general experience.	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours body parts (upper & lower limbs, thorax, tem) including; terms, regions, muscles, embryology including the development of	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. The embryo starting from the zygon	Course Name: General Biology Lab nicroscope and its usage to stude e cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the beanatomy of the nervous systis course also covers general educe, the fetal membranes, place	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours loody parts (upper & lower limbs, thorax tem) including; terms, regions, muscles embryology including the development of the and congenital anomaly.	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. The embryo starting from the zygon Course Number:	Course Name: General Biology Lab nicroscope and its usage to stude e cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the because also covers general expect, the fetal membranes, place Course Name:	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours body parts (upper & lower limbs, thorax tem) including; terms, regions, muscles embryology including the development of	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. Thembryo starting from the zygor Course Number: 31502111	Course Name: General Biology Lab nicroscope and its usage to stude cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the because also covers general expect, the fetal membranes, place Course Name: General Histology	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours loody parts (upper & lower limbs, thorax, tem) including; terms, regions, muscles, embryology including the development of the and congenital anomaly. (2) Credit Hours	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. The embryo starting from the zygot Course Number: 31502111 This course covers the cell was a course of	Course Name: General Biology Lab nicroscope and its usage to stude e cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the beanatomy of the nervous systis course also covers general extended to the fetal membranes, place Course Name: General Histology with respect to structure, function	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours loody parts (upper & lower limbs, thorax rem) including; terms, regions, muscles embryology including the development of and congenital anomaly. (2) Credit Hours on and classification, epithelial cells, cell	
Course Number: 30203114 Prerequisite 30203104. This course will covers; the mand plant cells, anatomy of the Course Number: 31502110 This course covers introduct abdomen, head & neck, and blood vessels, and nerves. Thembryo starting from the zygo Course Number: 31502111 This course covers the cell w structure of endocrine gland	Course Name: General Biology Lab nicroscope and its usage to stude e cells in living preparations ar Course Name: Anatomy & Embryology ion to gross anatomy of the beanatomy of the nervous systis course also covers general extended to the fetal membranes, place Course Name: General Histology with respect to structure, function	(1) Credit Hour ly the cell, chemical aspects of animal and cell division. (3) Credit Hours loody parts (upper & lower limbs, thorax tem) including; terms, regions, muscles, embryology including the development of the and congenital anomaly. (2) Credit Hours on and classification, epithelial cells, cell we tissues, bone and cartilage, muscles.	

Course Number:	Course Name:	(2) Credit Hours		
31501100	Introduction to Physiology	(=) 010410 120410		
	This course covers the definition of physiology and the systems involved. It includes the study of			
	1 0 00	nysiological units, biological membranes,		
		emodynamics and laws of blood flow		
Course Number:	Course Name:	(2) Credit Hours		
31501102	Introduction to	` '		
	Biochemistry			
This course covers the relation	onship between organic chemi	stry and biochemistry, structure of water		
and its properties including p	polarization and ionization, aci	ds, bases, and buffers. It also covers the		
study of the structure and	classification of carbohydrates	s, lipids, and amino acid, structure and		
characteristics of proteins, he	moglobin, fibrous proteins, en	zymes including their general properties,		
classification, kinetics, mecha	nisms of inhibition and regulat			
Course Number:	Course Name:	(3) Credit Hours		
31501221	Biochemistry			
		ructure. It also covers energy metabolism		
		oxidative phosphorylation. The course		
_	lipid metabolism, nitrogen, am	ines, acids in addition to nutrients and		
vitamins.				
Course Number:	Course Name:	(3) Credit Hours		
31503203	Introduction to			
	Pharmacology			
		igs and their historical development, drug		
		amics including mechanisms of action,		
		metabolism and excretion, drug reactions		
		rug information sources. It also covers		
	s, mechanisms action, pharmac	odynamics and side effects of		
antimicrobial agents and antic		(2) (2) (3)		
Course Number:	Course Name:	(3) Credit Hours		
31504204	Introduction to			
TOI :	Microbiology	1 '6' 1		
	•	espect to classification and structure of		
bacteria, viruses, parasites, and fungi, their characteristics, growth and replication, and their				
angaantihility ta antimia - 1-:-	10 It also sorress 41-2 24-14	the trace of mismo enseminary that		
		f the types of microorganisms that cause		
human disease, their pathoger	nesis, and methods of diagnosis	s, prevention and control.		
human disease, their pathoger Course Number:	nesis, and methods of diagnosis Course Name:			
human disease, their pathoger Course Number: 31504205	nesis, and methods of diagnosis Course Name: Introduction to Pathology	s, prevention and control.		

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.

Course Number: Course Name: (3) Credit Hours
31504301 Introduction to Medical
Immunology

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 it covers the drugs used in the treatment of these diseases.

Course Number:	Course Name:	(3) Credit Hours
31501261	Principles of Genetics and	
	Molecular Biology	

This course covers the basic principles of molecular biology and molecular genetics. Emphasis will be given to those principles that have application in medical practice. The structure of DNA and RNA as genetic material, DNA organization and its replication, mutation and repair in both prokaryotes and eukaryotes will be covered. Furthermore, gene expression will also be discussed. The course also will cover some aspects of cancer genetics, cytogenetic and molecular biology techniques.

The principles of molecular genetics and their application to a wide variety of clinical problems . The practice of modern medicine includes recognition of the role of genetic factors in health and disease. This requires knowledge of the structure, function, and transmission of genes and understanding of interactions both among genes, and between genes and the environment.

Course Number:	Course Name:	(3) Credit Hours
31505201	Community Medicine	

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.

Course Number:	Course Name:	(3) Credit Hours
31505291	Public Health	

This course covers health in the world from the aspects of measuring health and diseases in communities and the reasons of their disparities and diseases burden, health equity, culture and health, environmental health, chronic diseases, non-communicable disease, infectious diseases, mother and child health, breastfeeding, nutrition, child development and mental health. The course also covers health systems, health challenges especially to developing and emerging nations with limited resources, health priorities for population groups with diverse cultural backgrounds, catastrophes and emergencies, globalization and health, international human rights, social justice, and international health regulations.

Course Number:	Course Name:	(3) Credit Hours
31505204	Epidemiology and	
	Biostatistics	

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.

Course Number:	Course Name:	(2) Credit Hours
31505391	Health Economics and	
	Policies	

This course aims to introduce students to the general concepts of health economics and health policies. The course will cover the topics of health value, demand on health care, health insurance markets, health care management, governmental health insurance programs, health reform policies,

health expenditure control, cost analysis and cost effectiveness, health determinants, and health behaviors. It will also cover the economics of bad habits including smoking and alcohol consumption, methods to improve health care delivery, evaluation of medical technology, regulations of health care delivery physicians, components of health care delivery including hospitals and the pharmaceutical industry.

Course Number: Course Name: (4) Credit Hours
31500321 Endocrine System

This course covers the endocrine system from the standpoints of anatomical and histological structure, hormones including their structures, functions, mechanisms of action receptors, and their metabolism in addition to the endocrinology 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.

Course Number: Course Name: (6) Credit Hours
31500251 Digestive System

This course covers the digestive system including the alimentary tract, liver, biliary tree and the pancreas from the standpoints of anatomical and histological 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, and 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.

Course Number: Musculoskeletal System (5) Credit Hours and Skin

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 tumors 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.

Course Number: Course Name: (7) Credit Hours
31500311 Nervous System and
Special Senses

This course covers 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 peripheral nervous system as well as special senses.

Course Number: Course Name: (5) Credit Hours
31500231 Cardiovascular System

This course covers cardiovascular system from the standpoints of anatomy and histology of the 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 myocardial infarction. It also covers diseases of the heart and blood vessels including infections, atherosclerosis, 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

Course Number:	Course Name:	(5) Credit Hours
31500341	Respiratory System	

This course covers respiratory system from the standpoints of its anatomy and histology, 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.

Course Number:	Course Name:	(4) Credit Hours
31500271	Blood and Lymphatic	
	System	

This course covers the 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 hemoglobin, its functions and hemoglobinopathies, 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 anemia; disturbances of white blood cells including their numbers and functions; leukemia's 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.

Course Number:	Course Name:	(6) Credit Hours
31500361	Genitourinary system	

This course covers male and female genitourinary systems from the standpoints of anatomy and histology 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.

Course Number:	Course Name:	(3) Credit Hours
31508301	Behavioral Sciences	

This course is an introduction to and survey of the science of human behavior and mental processes. There is a primary emphasis on the application of scientific reasoning and the empirical method to the study of topics such as learning and cognition, the biological bases of behavior, personality, motivation and emotion, social and group dynamics, developmental processes, and behavioral disorders and treatment.

Course Number:	Course Name:	(8) Credit Hours
31500401	Introduction to Clinical	(8 Weeks)

Medicine and Medical Ethics

This course covers communication skills with patients and their relatives and the skills of history taking and physical examination of 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.

Course Number: Course Name: (10) Credit Hours
31508402 Medicine (1) (10 Weeks)

This course covers through ten weeks of clinical training, lectures, seminars and group discussions 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.

Course Number: Course Name: (10) Credit Hours
31507403 General Surgery (1) (10 Weeks)

This course covers 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, seminars and group discussions. In addition, students will be exposed to clinical training in anesthesia and critical care.

Course Number: Course Name: (3) Credit Hours
31500412 Clinical Neurosciences (3 Weeks)

This course covers diseases that affect the central and peripheral nervous system including infections, tumors, degenerative diseases and aging-related illnesses. In addition, the course covers road traffic accidents, falling down and the cerebrovascular accidents including intracranial hemorrhage and clotting. It also covers history taking and performing proper physical examination to reach into diagnosis through programmed clinical training for three weeks, in neurology and neurosurgery in addition to lectures, seminars and group discussions.

Course Number: Course Name: (3) Credit Hours
31511401 Anesthesia and Intensive
Care (3) Weeks)

This course covers, through clinical training, lectures and seminars methods in modern anesthesia in addition to management of intensive care patients. The course also covers the management of the severe and chronic pain.

Course Number: Course Name: (4) Credit Hours
31506481 Orthopedic Surgery (4 Weeks)

This course covers specific surgical specialties 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.

Course Number: Course Name: (3) Credit Hours
31508491 Primary Health Care/
Medicine

This course provides knowledge base to understand Primary Health Care (PHC) concepts, principles as well as different PHC programs including reproductive health and safe motherhood. Medical students will spend three week period in PHC-medicine rotation in PHC centers. Students during this rotation are exposed to different health problems commonly seen in these PHC centers. Their role

includes communication with patients, physical examination and active participation in management plan. Lectures and seminars are conducted on common disease as well as on disease prevention and health promotion. These sessions will focus on learning clinical skills essential to medicine, and will include hands-on, team-based and case-based learning.

Course Number: Course Name: (8) Credit Hours
31509502 Pediatrics (1) (8 Weeks)

This course covers child development and growth both mentally and physically since birth, pediatric care and prevention and control of diseases of childhood. It also covers diseases affecting children, its etiology, mechanisms, symptoms and signs, diagnosis, prevention and treatment of these diseases medically or surgically through eight weeks of programmed clinical training, lectures, seminars and group discussions.

Course Number: Course Name: (4) Credit Hours 51508512 Psychiatry (4 Weeks)

This course covers psychiatric disorders affecting humans, their etiology, mechanisms symptoms and signs, diagnosis and dealing with the psychiatric patient and psychiatric interventions. It also covers psychoorganic 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 four weeks in psychiatric outpatient clinics and hospitals through lectures, seminars and group discussions.

Course Number: Course Name: (2) Credit Hours 31506511 Ophthalmology (2 Weeks)

This course covers diseases of the eye including trauma, refractive errors and ways of their diagnosis and medical and surgical treatment, through a two week period of clinical training, lectures, seminars and group discussions.

Course Number: Course Name: (2) Credit Hours
31506541 Otolaryngology (2 Weeks)

This 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 medically and surgically, and prevention and control, through a two week period of programmed clinical training, lectures, seminars and group discussions.

Course Number: Course Name: (2) Credit Hours
31506561 Urology (2 Weeks)

This course covers 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 and group discussions.

Course Number: Course Name: (2) Credit Hours
31508582 Dermatology (2 Weeks)

This course covers diseases 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, seminars and group discussions.

Course Number: Course Name: (2) Credit Hours
31500591 Emergency Medicine (2 Weeks)

This course covers training in emergency medicine including the principles of diagnosis and treatment of medical and surgical emergencies as well as management of accidents and casualties and the legal aspects in medical practice.

Course Number: Course Name: (1) Credit Hours
31504592 Forensic Medicine and (1 Week)

Toxicology

This course covers training in management of accidents and casualties and the 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, lectures, seminars and group discussions. It also covers occupational, agricultural, industrial and medical poisoning.

Course Number: Course Name: (2) Credit Hours
31512593 Diagnostic Radiology (2 Weeks)

This course 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.

Course Number: Course Name: (4) Credit Hours
31505594 Family Medicine (4 Weeks)

This course is a for four weeks of clinical training that covers family medicine involving the training of students to provide comprehensive medical care for all family members utilizing available resources 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.

Course Number: Course Name: (8) Credit Hours
31510562 Obstetrics and Gynecology (1)

This course covers 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 caesarean section. In addition, it covers 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 discussions.

Course Number: Course Name: (3) Credit Hours
31503590 Therapeutics

During this course the pharmacotherapy of certain disorders will be comprehensively discussed by integrating the pathophysiology of the disease with drug actions and uses. It will emphasize the concept of evidence-based therapeutics in selecting the appropriate treatment of the particular patient, and how to monitor response to drug and its adverse reactions. Emphasis will be given to drug-drug and drug-disease interactions.

Course Number: Course Name: (3) Credit Hours
31509595 Primary Health care/
Pediatrics

This course provides a knowledge base to understand Primary Health Care (PHC) concepts, principles as well as different PHC programs including reproductive health and, safe motherhood, child's health and immunization. Medical students spend three week in pediatric PHC centers rotation. Students during this rotation are exposed to different health problems commonly seen among children's. Students will be oriented to comprehend the followings: communication with children's and their families, physical examination and active participation of students in management plan. Course description include: lectures and seminars that can targeting the most common diseases as well as disease prevention and health promotion. These sessions will focus on teaching clinical skills essential to pediatrics, and will include hands-on training, team-based and case-based learning.

Course Number: Course Name: (8) Credit Hours

31500691	Elective Clinical Training	(8 Weeks)
This course assigned for clir	nical training for a period of	eight weeks in a given clinical specialty
which will be elected by the s	student to be performed in reco	gnized hospitals or medical centers inside
or outside Jordan.		
Course Number:	Course Name:	(8) Credit Hours
31508602	Medicine (2)	(8 Weeks)
This course provides the tra	ining of students in outpatier	nt clinics and specialized units covering
clinical manifestations of dis	seases, their diagnosis and tre	atment. The course is delivered through
clinical training, lectures, tuto	orials, seminars and discussions	J.
Course Number:	Course Name:	(8) Credit Hours
31507603	General Surgery (2)	(8 Weeks)
This course involves the train	ining of students in outpatient	t clinics, specialized units and operating
rooms covering clinical mar	nifestations of diseases, their	diagnosis and treatments in addition to
postoperative follow-up. The	course is delivered through cli	nical training, tutorials, lectures, seminars
and discussions.		
Course Number:	Course Name:	(8) Credit Hours
31509602	Pediatrics (2)	(8 Weeks)
This course covers pediatric diseases, methods of treatment and caring for the child through		
		e Care Unit, and Neonatal Intensive Care
Unit, seminars and group discussions. Students are trained to deal with pediatric diseases through a		
problem solving approach.		
Course Number:	Course Name:	(8) Credit Hours
31510662	Obstetrics and	(8 Weeks)
	Gynecology (2)	
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, and obstetrics operation room in addition to lectures, seminars and group		
discussions.		
Course Number	Course Nomes	(6) Cnodit Houng

discussions.

Course Number: Course Name: (6) Credit Hours
31500692 Graduation Project

Each student will select a medical problem or topic and use either quantitative or qualitative research inquiry to deal with it under the supervision of a teaching staff member. The student must write a research paper at the end of the course about this project and discuss it with his supervisor to be submitted for approval.