

## 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:

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

#### **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):**

<b>Code</b>	<b>Specialty</b>
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:**

<b>Course Code</b>	<b>Course Title</b>
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
<b>Total</b>		<b>-</b>	<b>20</b>	<b>3</b>	<b>21</b>

**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.

(17) Credit Hours

B. Requirements in Basic Medical Sciences.

(82) Credit Hours

C. Requirements in Clinical Sciences.

(130) Credit Hours

**A- Requirements in Basic Sciences:**

(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 Faculties	2	3	3
<b>Total</b>		<b>15</b>	<b>6</b>	<b>17</b>

**B- Requirement in Basic Medical Sciences:**

(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 Biology	3	-	3
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
<b>Total in Credit Hours</b>		<b>69</b>	<b>13</b>	<b>82</b>

<b>Total in Contact Hours</b>	<b>69</b>	<b>39</b>	<b>108</b>
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**C- Requirements in Clinical Sciences:**

(130) Credit hours including the following courses:

<b>Course No.</b>	<b>Course Name</b>	<b>Clinical Training in Weeks</b>	<b>Credit Hours</b>
31500401	Introduction to Clinical Medicine and Medical Ethics	8	8
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
<b>Total</b>		<b>115</b>	<b>130</b>

## **Guidance Plan for Registration Purposes (Annual Plan):**

### **First Year**

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

<b>Summer Semester</b>		
<b>Course No.</b>	<b>Course Name</b>	<b>Credit Hours</b>
31501102	Introduction to Biochemistry	2
	University Req. Course	3
	University Req. Course	3
	<b>Total</b>	<b>8</b>

### **Second Year**

<b>First Semester</b>			<b>Second Semester</b>		
<b>Course No.</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Course No.</b>	<b>Course Name</b>	<b>Credit Hours</b>
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
31503203	Introduction to Pharmacology	3	31501261	Principles of Genetics and Molecular Biology	3
31505201	Community Medicine	3			
	University Req. Course	3			
	<b>Total</b>	<b>18</b>		<b>Total</b>	<b>18</b>

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

### **Third Year**

<b>First Semester</b>			<b>Second Semester</b>		
<b>Course No.</b>	<b>Course Name</b>	<b>Credit Hours</b>	<b>Course No.</b>	<b>Course Name</b>	<b>Credit Hours</b>
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			
	<b>Total</b>	<b>19</b>		<b>Total</b>	<b>18</b>

### **Fourth Year Include Summer Semester**

<b>Fourth Year</b>			
<b>Course No.</b>	<b>Course Name</b>	<b>Clinical Training in Weeks</b>	<b>Credit Hours</b>
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
	<b>Total</b>	<b>38</b>	<b>41</b>

### **Fifth Year Including Summer Semester**

<b>Fifth Year</b>			
<b>Course No.</b>	<b>Course Name</b>	<b>Clinical Training in Weeks</b>	<b>Credit Hours</b>
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
<b>Total</b>		<b>37</b>	<b>43</b>

### **Sixth Year Including Summer Semester**

<b>Sixth Year</b>			
<b>Course No.</b>	<b>Course Name</b>	<b>Clinical Training in Weeks</b>	<b>Credit Hours</b>
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
	<b>Total</b>	<b>40</b>	<b>46</b>

#### **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

<b>Course Number:</b> <b>30206131</b>	<b>Course Name:</b> <b>Organic Chemistry for Medical Students</b>	<b>3 Credit Hours</b>
<b>Course Prerequisites: General Chemistry</b> This course introduces the science of organic chemistry for medical students. It emphasizes on structural, physical and chemical properties of the organic compounds. It covers saturated hydrocarbons, unsaturated hydrocarbons, benzene and aromatic compounds, stereochemistry, substitution and elimination reactions for alkyl halides, alcohols, phenols, ethers, aldehydes, ketones, carboxylic acid derivatives and amines.		
<b>Course Number:</b> <b>30206106</b>	<b>Course Name:</b> <b>General Chemistry for Medical Students</b>	<b>(4) Credit Hours</b>
This course is aiming to give the basic fundamentals of chemistry. It provides a short review of the atomic structure and periodic trends. It also provides an introduction to the bonding theories, chemical reactions, explaining the principles of the chemical calculations, energy changes, reaction rate, reaction equilibrium, gases, liquids, solids, solutions, acids, bases, nuclear and organic chemistry.		
<b>Course Number:</b> <b>30201106</b>	<b>Course Name:</b> <b>Medical Physics</b>	<b>(3) Credit Hours</b>
In this course the following material will be covered: One dimensional motion, two dimensional motion, Newton's laws of motion, conservation of energy, the ideal gas, Archimedes' principle, equation of continuity, Bernoulli's equation, optics and radiation.		
<b>Course Number:</b> <b>30203104</b>	<b>Course Name:</b> <b>General Biology</b>	<b>(3) Credit Hours</b>
This course covers, water and its importance to the environment and organisms, large bio-molecules (structure and function), structure and function of primitive objects, nucleus, mitosis and meiosis, DNA molecule and molecular genetics, DNA techniques, genetics of viruses, bacteria, fungi, cellular 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 circulatory.		
<b>Course Number:</b> <b>30203114</b>	<b>Course Name:</b> <b>General Biology Lab</b>	<b>(1) Credit Hour</b>
<b>Prerequisite 30203104.</b> This course will covers; the microscope and its usage to study the cell, chemical aspects of animal and plant cells, anatomy of the cells in living preparations and cell division.		
<b>Course Number:</b> <b>31502110</b>	<b>Course Name:</b> <b>Anatomy &amp; Embryology</b>	<b>(3) Credit Hours</b>
This course covers introduction to gross anatomy of the body parts (upper & lower limbs, thorax, abdomen, head & neck, and anatomy of the nervous system) including; terms, regions, muscles, blood vessels, and nerves. This course also covers general embryology including the development of embryo starting from the zygote, the fetal membranes, placenta and congenital anomaly.		
<b>Course Number:</b> <b>31502111</b>	<b>Course Name:</b> <b>General Histology</b>	<b>(2) Credit Hours</b>
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, lymph reticular tissue, skin and appendages.		

<b>Course Number:</b> <b>31501100</b>	<b>Course Name:</b> <b>Introduction to Physiology</b>	<b>(2) Credit Hours</b>
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, biological membranes, transport, homeostasis, body fluids, membrane potentials, hemodynamics and laws of blood flow		
<b>Course Number:</b> <b>31501102</b>	<b>Course Name:</b> <b>Introduction to Biochemistry</b>	<b>(2) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31501221</b>	<b>Course Name:</b> <b>Biochemistry</b>	<b>(3) Credit Hours</b>
This course covers nucleic acids and nucleotides and gene structure. It also covers energy metabolism including cellular bioenergetics, tricarboxylic acid cycle and oxidative phosphorylation. The course also covers carbohydrate and lipid metabolism, nitrogen, amines, acids in addition to nutrients and vitamins.		
<b>Course Number:</b> <b>31503203</b>	<b>Course Name:</b> <b>Introduction to Pharmacology</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31504204</b>	<b>Course Name:</b> <b>Introduction to Microbiology</b>	<b>(3) Credit Hours</b>
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, their pathogenesis, and methods of diagnosis, prevention and control.		
<b>Course Number:</b> <b>31504205</b>	<b>Course Name:</b> <b>Introduction to Pathology</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31504301</b>	<b>Course Name:</b> <b>Introduction to Medical Immunology</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31505201</b>	<b>Course Name:</b> <b>Community Medicine</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31505291</b>	<b>Course Name:</b> <b>Public Health</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31505204</b>	<b>Course Name:</b> <b>Epidemiology and Biostatistics</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31505391</b>	<b>Course Name:</b> <b>Health Economics and Policies</b>	<b>(2) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500321</b>	<b>Course Name:</b> <b>Endocrine System</b>	<b>(4) Credit Hours</b>
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.		

<b>Course Number:</b> <b>31500251</b>	<b>Course Name:</b> <b>Digestive System</b>	<b>(6) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500381</b>	<b>Musculoskeletal System and Skin</b>	<b>(5) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500311</b>	<b>Course Name:</b> <b>Nervous System and Special Senses</b>	<b>(7) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500231</b>	<b>Course Name:</b> <b>Cardiovascular System</b>	<b>(5) Credit Hours</b>
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		
<b>Course Number:</b> <b>31500341</b>	<b>Course Name:</b> <b>Respiratory System</b>	<b>(5) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500271</b>	<b>Course Name:</b> <b>Blood and Lymphatic System</b>	<b>(4) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500361</b>	<b>Course Name:</b> <b>Genitourinary system</b>	<b>(6) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31508301</b>	<b>Course Name:</b> <b>Behavioral Sciences</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500401</b>	<b>Course Name:</b> <b>Introduction to Clinical Medicine and Medical Ethics</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
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.		
<b>Course Number:</b> <b>31508402</b>	<b>Course Name:</b> <b>Medicine (1)</b>	<b>(10) Credit Hours</b> <b>(10 Weeks)</b>
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.		
<b>Course Number:</b> <b>31507403</b>	<b>Course Name:</b> <b>General Surgery (1)</b>	<b>(10) Credit Hours</b> <b>(10 Weeks)</b>
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.		
<b>Course Number:</b> <b>31500412</b>	<b>Course Name:</b> <b>Clinical Neurosciences</b>	<b>(3) Credit Hours</b> <b>(3 Weeks)</b>
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.		
<b>Course Number:</b> <b>31511401</b>	<b>Course Name:</b> <b>Anesthesia and Intensive Care</b>	<b>(3) Credit Hours</b> <b>(3 Weeks)</b>
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.		
<b>Course Number:</b> <b>31506481</b>	<b>Course Name:</b> <b>Orthopedic Surgery</b>	<b>(4) Credit Hours</b> <b>(4 Weeks)</b>
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.		
<b>Course Number:</b> <b>31508491</b>	<b>Course Name:</b> <b>Primary Health Care/ Medicine</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31509502</b>	<b>Course Name:</b> <b>Pediatrics (1)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
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.		
<b>Course Number:</b>	<b>Course Name:</b>	<b>(4) Credit Hours</b>

<b>51508512</b>	<b>Psychiatry</b>	<b>(4 Weeks)</b>
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.		
<b>Course Number: 31506511</b>	<b>Course Name: Ophthalmology</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		
<b>Course Number: 31506541</b>	<b>Course Name: Otolaryngology</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		
<b>Course Number: 31506561</b>	<b>Course Name: Urology</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		
<b>Course Number: 31508582</b>	<b>Course Name: Dermatology</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		
<b>Course Number: 31500591</b>	<b>Course Name: Emergency Medicine</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		
<b>Course Number: 31504592</b>	<b>Course Name: Forensic Medicine and Toxicology</b>	<b>(1) Credit Hours (1 Week)</b>
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.		
<b>Course Number: 31512593</b>	<b>Course Name: Diagnostic Radiology</b>	<b>(2) Credit Hours (2 Weeks)</b>
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.		

<b>Course Number:</b> <b>31505594</b>	<b>Course Name:</b> <b>Family Medicine</b>	<b>(4) Credit Hours</b> <b>(4 Weeks)</b>
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.		
<b>Course Number:</b> <b>31510562</b>	<b>Course Name:</b> <b>Obstetrics and Gynecology (1)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
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.		
<b>Course Number:</b> <b>31503590</b>	<b>Course Name:</b> <b>Therapeutics</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31509595</b>	<b>Course Name:</b> <b>Primary Health care/ Pediatrics</b>	<b>(3) Credit Hours</b>
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.		
<b>Course Number:</b> <b>31500691</b>	<b>Course Name:</b> <b>Elective Clinical Training</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
This course assigned for clinical training for a period of eight weeks in a given clinical specialty which will be elected by the student to be performed in recognized hospitals or medical centers inside or outside Jordan.		
<b>Course Number:</b> <b>31508602</b>	<b>Course Name:</b> <b>Medicine (2)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
This course provides the training of students in outpatient clinics and specialized units covering clinical manifestations of diseases, their diagnosis and treatment. The course is delivered through clinical training, lectures, tutorials, seminars and discussions.		
<b>Course Number:</b> <b>31507603</b>	<b>Course Name:</b> <b>General Surgery (2)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
This course involves the training of students in outpatient clinics, specialized units and operating		



rooms covering clinical manifestations of diseases, their diagnosis and treatments in addition to postoperative follow-up. The course is delivered through clinical training, tutorials, lectures, seminars and discussions.		
<b>Course Number:</b> <b>31509602</b>	<b>Course Name:</b> <b>Pediatrics (2)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
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 through a problem solving approach.		
<b>Course Number:</b> <b>31510662</b>	<b>Course Name:</b> <b>Obstetrics and Gynecology (2)</b>	<b>(8) Credit Hours</b> <b>(8 Weeks)</b>
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.		
<b>Course Number:</b> <b>31500692</b>	<b>Course Name:</b> <b>Graduation Project</b>	<b>(6) Credit Hours</b>
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.		