College of Medicine University of Mosul

First Year

Medical Chemistry

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he\she has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Biochemistry	
Name of Academic Program	MBChB	
Academic Year/level	First year	
Title of the course	Medical chemistry	
Code	McBi 22 101	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 60	Total=120
	Theoretical hours=60	
Date of specification approval	14/11/2022	

General Aims of Course
This course includes the scientific building of knowledge, employing the ability and refining the skill in order to assimilate the scientific foundations in the topics of organic, inorganic and analytical chemistry and the foundations and priorities of biochemistry for the purpose of learning, understanding and comprehending the chemical reactions that occur inside the human body, both natural and pathological, and for later understanding the mechanism of diseases and their causes through the study of biochemistry and clinical Details, resulting from imbalances in natural chemical reactions and the means to repair them within the human body

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	1- Describe the bases of organic chemistry 2- Clarify important basics in analytical chemistry 3- Classify the bases of inorganic chemistry 4- Describe important basics in biochemistry 5- Assess the medical application of studying biochemistry
Intellectual Skills	1. Organize links between the materials produced from raw materials, understand their path, and try to transform them from their natural path to other paths for more benefit 2- Design the paths of transforming harmful produced substances into harmless substances, especially inside the body 3- Arrange and develop the means of analysis and selection of the resulting materials and increase their specialization
Professional Skills	1- Design how and the possibility of synthesizing a number of organic substances from their primary resources inside or outside the body 2 – Manage the analyzing and measuring of number of basic materials inside the body and analyzing different models
General and Transferable Skills	1-Summarize skills in the use of materials and equipment and the necessities that support them in verification, measurement and evaluation 2- Discuss with students practically, directing them and alerting them to the possible specialized dangers as a result of their work, especially for the unscheduled and inferred judgments from their activities in personal development and assigning distinctive abilities to be on the right track.
Attitude outcomes	the student will be able to recognize any problems in relation to the topics and act accordingly, the student will have the

	acknowledge for the importance of wearing gloves and mask in chemical lab

Course structure			
topic	No. Of lectures	No. Of labs	Lecturer
0rganic chemistry and safety in the lab	20	4	Omar Mohammad Yahya
Carbohydrates Biochemistry	8	8	Zainab Mohammed Ali
Lipid Biochemistry	5	2	Saba Khairy Salih
Amino acid and protein Biochemistry	10	8	Maher Abdulsattar Ibrahim
Analytical chemistry and inorganic chemistry	13	5	Shaimaa Muyasser Nayif, Entesar Ahmed Sulliman
Enzymes Biochemistry	4	3	Saba Khairy Salih

Teaching and learning methods	
Theoretical lectures	2 lectures \week
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	Students are presenting about different topics in medical chemistry through seminars conducted by 3-5 students and encouraged to make scientific posters. They are subjected to discussion by teaching staff and colleagues.

Assessment methods

Formative assessments	1. Fast quizzes at the end of lecture 2. Asking students to answer two or three questions (may be an MCQ), explain a mechanism or a finding and react with slides and discussion within the lecture minutes. 3. Electronic assignments to the class (using google forms) 4. Case interpretations in the lab (students will discuss some lab results to settle differential diagnosis) 5. Seminar discussion (the teacher and/or student select a topic and present it with thorough discussion).
Summative assessments	1. End of term (1st. and 2nd.) exam in practical subjects using manual work (experiments) or oral examination. Students are rewarded 7.5% of total marks for each term. 2. Final Exam in practical subjects (usually oral examination, spot examination or students are subjected to written assessment). Students are rewarded 10% of total marks. 3. Mid-year and final written examinations in theoretical knowledge (student has to answer MCQ questions and short essay questions). Students are rewarded 25% and 50% of total marks respectively.
Pass mark	50%

Resources and requirements

Essential text books	1. Textbooks for medical chemistry Chemical basis of life George H Schmid
Recommended text books	1.Principle of biochemistry David L. Nelson Michael M Cox
Other resources	

Medical physics

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

General Aims of Course

To know about the physical work of all body systems
Discuss the principal basics of medical instruments work (medical diagnostic using X rays, MRI
Radiological therapy and other related matters.
Improve the ability of the students to work in medical field and have medical skills and knowledge in this field

Educational Institution/ college	**CMUM**	
Department offering the course	**Medical Physiology**	
Name of Academic Program	**MBChB**	
Academic Year/level	**1st year /2022-2023**	
Title of the course	**Medical Physiology/Medical physics**	
Code	**MCPs102**	
Link	https://drive.google.com/drive/folders/16HSx9Zkd-uHMTjamukak9HCYuVpV0nki	
Total Course Hours	**Practical hours=60**	**Total=105**
	Theoretical hours=45	
Date of specification approval	**13/11/2022**	

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1: Differentiate between the physical basic function of each body system of the human being. 2: have a good knowledge about the clinical physics 3: know the physical basic of each medical instruments 4: learn how can apply the physics in human disease diagnosis
Intellectual Skills	1. Mention all the clinical instruments that are needed to investigate the organ systems and how they work. 2. Ask an important question at the end of lectures that improve their thinking and their knowledge. 3. The student's response to the lecturer questions at the end of each lecture that improve their memory and ways of answer. 4. Prepare a copybook about any physical experiment, discuss and answer any asked question from teachers.
Professional Skills	1. Perform all the physical experiments at the medical laboratory.
General and Transferable Skills	1. Have a skill in using medical instrument. 2. defend them self when there are wrong results of experiments as they know the reason of the fault (as technical problem in instruments) 3. perform experiments and compare their result with normal ranges and they can give their decision and diagnosis 4. make a discussion field at the end of lectures and laboratory introduction for improving learning level of students
Attitude outcomes	The student able to keep the whole instrument in safe and clean.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction to medical physics	1	-	Yahya Alhalema
Energy, work, and power of the body.	4	8	Yahya Alhalema
Basic physics of the cardiovascular system	6	6	Yahya Alhalema
Electricity within the body	6	4	Yahya Alhalema
Physics of nuclear medicine.	6		Yahya Alhalema
Basic physic of lung and breathing	6	4	Yahya Alhalema

Eyes and vision	2	4	Yahya Alhalema
Sound in medicine	3	4	Yahya Alhalema
Physics of diagnostic x rays	6		Yahya Alhalema
Types of rays	1		Raghda Alomary
Radioactive pollution	1		Raghda Alomary
x-ray	1		Raghda Alomary
Microwave spectra	1		Raghda Alomary
Ecological effect of disposed radioactive substances	1		Raghda Alomary

Teaching and learning methods	
1. Theoretical lectures	Lectures: the students classified to 2 groups
2. Practical labs	The students distributed into small groups each of 10-15 students.
3. Seminars and posters presentations	Each group of students participate in activity, posters

Assessment methods	
1. Formative assessments	1. logbook 2. homework 3. question at the end of each lecture
2. Summative assessments	1.mid year exam (practical 10%+theoretical 30%) 2.final exam (practical 15%+ theoretical 40%) 3. quiz 2% +students activities 3%)
3. Pass mark	50%

Resources and requirements	
Essential text books	**Medical physics – Cameron**
Recommended text books	
Other resources	Lectures and practical labs information

Anatomy

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Anatomy	
Name of Academic Program	MBChB	
Academic Year/level	1st year	
Tilte of the course	Gross anatomy	
Code	McAn103	
Total Course Hours	Practical hours=120	Total=180
	Theoretical hours=60	
Date of specification approval	1/9/2022	

General Aims of Course

The overall aim of the course is to provide the students with the basic anatomical knowledge of
the normal structure of the human body at the level of the upper limb, thorax and lower limb and to integrate these anatomical facts with more advanced knowledge of clinical sciences

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	- Describe the principal distinguishing features of bones of the upper limb - List the muscles of the upper limb and their main action and nerve supply including the rotator cuff muscles. - List the muscles that are attached to the arm and forearm and their action and nerve supply - Define the axilla, Describe the boundaries and borders of the axilla - List the contents of the axilla. - Describe the components of the joints of the upper limb. - Describe the stability of the shoulder joint. - Describe the cubital fossa, list the contents of the cubital fossa. - Understand the clinical importance of the cubital fossa - Describe the components of the elbow joint. - List the muscles acting on the elbow joint - Describe the components of the wrist joint. - List the muscles acting on the wrist joint - Describe the carpal tunnel and the flexor and extensor retinacula and the structures passing in relation to the retinacula - Describe the snuffbox. - Describe the movement of the fingers and list the muscles acting on the fingers. - Describe the principal distinguishing features of bones of the thoracic cage - List the muscles of the thoracic wall and their main action and nerve supply. - List the contents of intercostal space. - Define the pleura. - Describe lungs. - Describe the components of the mediastinum. - Describe the surface anatomy of the heart. - Describe the chambers of the heart. - Understand the conductive system of heart. - List the blood supply of the heart. - List the posterior mediastinal structures. - Describe the principal distinguishing features of bones of the lower limb - List the muscles of the lower limb and their main action and nerve supply. - List the cutaneous nerves of the lower limb. - Define the femoral triangle, Describe the boundaries and borders of the triangle - List the boundaries and contents of the adductor canal.

	- Describe the components of the joints of the lower limb. - Describe the stability of the hip joint. - Describe the popliteal fossa, list the content of the popliteal fossa. - Understand the clinical importance of the gluteal region and popliteal fossa - Describe the components of the knee joint. - List the muscles acting on the knee joint - Describe the components of the ankle joint. - List the muscles acting on the ankle joint - Describe the flexor and extensor retinacula and the structures passing in relation to the retinacula - Describe the soles of feet. - Describe the movement of the toes and list the muscles acting on them.
Intellectual Skills	- Integrate the anatomical facts with the basic clinical knowledge required for proper examination of a patient in order to reach a proper diagnosis - Relate the surface markings of different structures and determine the position or course of internal structures - Correlate the anatomical knowledge with clinical signs seen in cases of nerve injuries of upper and lower limbs.
Professional Skills	- Locate the peripheral pulses and evaluate their features - Locate the brachial artery pulsation for efficient blood pressure assessment. - Locate the dorsalis pedis artery pulsation for efficient blood supply to foot. - Locate the apex of the heart to see whether the heart is enlarged. - Elicit the normal anatomical structures on X-rays
General and Transferable Skills	- read and appraise scientific papers related to anatomy - present scientific facts in a well-organized matter - use advanced technology to search for facts and prepare presentations - work as an effective team member.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction to anatomy	8	8	Dr. Rana Mumtaz
Anatomy of the upper limb	18	18	Dr. Rana Mumtaz
Thorax	16	16	Dr. Ashraf
Anatomy of the lower limb	18	18	Dr. Mayson

Teaching and learning methods	
4. Theoretical lectures	2 lectures / week
5. Practical labs	The students are divided into small groups each of 10-15 students Plastinated cadavers, skeletons, bone and organ specimens will be available for students X-ray imaging films will be available to learn different bonny landmarks
6. Seminars and presentations	Each 5-7 students are required to present a seminar on specific subject

Assessment methods	
4. Formative assessments	1. formative quiz during lectures 2. discussion panels during assessment lab 3. completing Logbook
4. Summative assessments	1. midyear exam: 30% (10 practical, 20 theoretical) 2. final exam: 70% (20 practical, 50 theoretical).
5. Pass mark	50%

Resources and requirements	
Essential text books	1. Cunningham`s Manual of Practical Anatomy, (theoretical and practical, vol.1 and 2)  2. Grant Atlas of Anatomy  3. Snell`s Clinical Anatomy by Regions

Recommended text books	1. Gray's Anatomy 2. Atlas of Human Anatomy by FH Netter3.
Other resources	Will be included in the lectures accordingly

الرابط	المادة / المرحلة / اسم التدريسي
https://drive.google.com/drive/folders/1Cr8wAAUa-XcYJYJ9iDsU5KItBggf9YqG?usp=share_link	محاضرات مادة التشريح / المرحلة الاولى / م.د. رنا ممتاز رؤوف
https://drive.google.com/drive/folders/1Gr6q2gozX0JZeV3VYb6L1bqVFXpXX2GO?usp=share_link	محاضرات مادة التشريح / المرحلة الاولى / ا.م.د. احمد هشام قاسم
https://drive.google.com/drive/folders/1Tk1hbEqXUSnusVpeG_8pkBhWLA_3M5od	محاضرات مادة التشريح / المرحلة الاولى / م.م. حارث علي حسن
https://drive.google.com/drive/folders/1ui-eO13XOlgWx90Dzm9QxX_w_4WZ_4eL?usp=share_link	محاضرات مادة الاحياء الطبية / المرحلة الاولى / ا.م.د. بثينة حاتم السبعاوي
https://docs.google.com/presentation/d/1aAgIYszrupd3352Ag5IJ0O9QDtJZcTG1/edit?usp=share_link&ouid=114981428829343696386&rtpof=true&sd=true	محاضرات مادة الاحياء الطبية / المرحلة الاولى / ا.م.د. رمزية حسن عبدالرحمن
https://drive.google.com/drive/folders/16jwgCUqHhPG4CP52NzDaBDmW13OKL_50?usp=share_link	محاضرات مادة الاحياء الطبية / المرحلة الاولى / ا.م.د. كوكب ادريس محمود
https://drive.google.com/drive/folders/1qlNDy2mlHjknuENj5so07Jfx_dmWS7nU	محاضرات مادة الاحياء الطبية/ المرحلة الاولى/ م.م. علياء علي عبدالله
https://drive.google.com/drive/folders/1ZNoMXriLrq8BrsUEreiWju-bmOp9PiDA?usp=share_link	محاضرات مادة الاحياء الطبية / المرحلة الاولى/ ا.م.د. علي عادل داؤد

Medical biology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Anatomy	
Name of Academic Program	MBChB	
Academic Year/level	1st year	
Tilte of the course	Biology	
Code	McAn104	
Total Course Hours	Practical hours=60	Total=120
	Theoretical hours=60	
Date of specification approval	1/9/2022	

General Aims of Course

This course will help the students to acquire the major knowledge facts regarding the structure, function and various activities of cells. In addition to the foundation of cytogenetics and the basic tissues of the body (Epithelium, connective tissue, muscular tissue and nervous tissue) and apply the skill to relate the function and structure of different tissues and practical knowledge of different tissue types under a light microscope.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	- Describe the basic steps in preparing and staining specimens for light microscope. - Describe the histological characteristics of normal cells - Describe the structure and functions of the cytoplasmic components (membranous and non-membranous cell organelles, cell inclusions) - Recognize the subunits of each nuclear component and their role in its function - Describe the process of cell division and identify the activities that control the transition from each phase of the cell cycle to the other - Differentiate between normal and abnormal karyotyping. - Describe the structural characteristics of the four basic tissue types, epithelial tissue, connective tissue, bone & cartilage. - Describe and compare between different blood elements and their development. - Define and discuss the basic histological tissues of the body.
Intellectual Skills	- Select appropriate methods to reveal specific microscopic features of cells and tissues - Correlate between histological structure & function of any cell or tissue - Interpret a complete blood picture report
Professional Skills	- Illustrate the instruments and techniques used to prepare and study histological specimens. - Use the microscope efficiently. - Handle the histological glass slides and examine them using the maximum microscopic facilities - Identify various types of stains & microscopic techniques. - Elicit different cell organelles. - Differentiate between different blood cells in blood films & recognize a differential leucocytic count. - Differentiate between different types of epithelium, connective tissue cells, connective tissue proper & bone cells - Differentiate between different organs in histological slide seen under the microscope. - Elicit histological slides of tissues and organs.

General and Transferable Skills	- Adopt the importance of lifelong learning and show a strong commitment to it - Use the sources of biomedical information to remain current with advances in knowledge and practice - Collect information to enhance self-study and education - The student can express freely and adequately by improving his descriptive capabilities and presentation skills and enhancing his communication skills. - The student can improve his writing skills through self-reflection after each laboratory session

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction , Cell component	5	7	1- Inam A. abdulhameed
Cell organelles	3		2- Dr. Ali A. Dawood
Cell division, cell activity	7		3- Dr. Buthaina H Al-Sabawi
Genetics	6	8	4- Dr. Kawkab I. M
General Histology	9		5- Dr. Ramzia H. abdulrahman 6- Dr. Wahda A. khrofa

Teaching and learning methods	
Theoretical lectures	2 lectures / week
Practical labs	- Large group in the auditorium - The small groups in the practical laboratory. Students are divided into small groups (2 students each); each group is issued a topic for working as a team (to search on it, collect information and present it as seminar in a power point presentation) and present them in front of their peers and senior staff. A soft copy of presentation is collected at the end of the round. - Practical sessions to gain practical skills & drawing.
Seminars and presentations	Each 5-7 students are required to present a seminar on specific subject

Assessment methods	
Formative assessments	- Formative quiz during lectures - Discussion panels during assessment lab - Completing Logbook
Summative assessments	1. Midyear exam: 35% (10 practical, 25 theoretical) 2. Final exam: 65% (10 practical, 55 theoretical).
Pass mark	50%

Resources and requirements	
Essential text books	- Biology (18th edition) 2010. Sylvia S. Mader
Recommended text books	•Concepts of biology. 2013. Samantha Flowr and et. al •Human genetics concepts and application. 20th edition 2016 •Basic histology. 10th edition. 2003. Luiz. Caries. Junqueirs
Other resources	Will be included in the lectures accordingly

Foundation of Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and lists the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	First	
Tilte of the course	Foundation of Medicine	
Code	MCMd105	
link	https://drive.google.com/drive/folders/130sD_p7rtR756WMXeI6oYC8z3p9otHpU?usp=sharinghttps://drive.google.com/drive/folders/130sD_p7rtR756WMXeI6oYC8z3p9otHpU?usp=sharing	
Total Course Hours	Practical hours=	Total=30
	Theoretical hours=30	
Date of specification approval	10/11/2022	

General Aims of Course

The course aims to teach the foundation of medicine to students of the first stage in the Faculty of Medicine in its theoretical aspects, where the student is familiar with the science of medical terminology concerning the building of medical terms and how to analyze the medical terms and decode them. Also, the course helps the students to understand the principles of community medicine, the distribution of diseases, the uses of medical herbs, and important WHO definitions.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Understand the foundation of medicine. 2. Know the build of medical terms. 3. Understand medical terms. 4. Know the WHO objectives.
Intellectual Skills	1. Modify medical terms. 2. Figure the difference between the medical terms. 3. Use the best medical terms.
Professional Skills	1. Beneft from medical terminology. 2. Apply the principles of community medicine in the field of his clinical work. 3.Use of medical herbs.
General and Transferable Skills	1. Graduate a doctor who can use medical terms correctly and fluently. 2. Prepare a doctor who can understand the distribution of the disease and how to prevent it.
Attitude outcomes	Recognize any ethical problems and medicolegal concerning medical terms

Topic	No. Of lectures	Lecturer
Medical termanolgy	15	Qasim S. Al-Chalabi
Principle of community medicine	15	Ahmed Manhal

Teaching and learning methods	
1. Theoretical lectures	
2. Seminars and presentations	The students are divided into small groups each of 10-15 students

Assessment methods	
Formative assessments	- Discussion and oral tests.
Summative assessments	- Written exams 100%
Pass mark	50%

Resources and requirements	
Essential textbooks	1. Introduction to Medical Terminology by Linda Stanhope, Kimberly Turnbull. 2.Principles and Practice of Community Medicine 2nd ed. Edition by Asma Rahim (Author)
Recommended textbooks	Principles Of Community Medicine Paperback by Dr.B.Sridhar Rao (Author)
Other resources	Web and internet as a source of information.

Computer science

Course description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Computer unit	
Name of Academic Program	MBChB	
Academic Year/level	Annual /first term	
Title of the course	Computer science	
Code	MCCU106	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=60 h Theoretical hours=30 h	Total=90 h
Date of specification approval	12/11/2022	

General Aims of Course

The course aims to teach computer subject for students of the first stage in the College of Medicine, as well as postgraduate students (PhD - Master - Diploma) and for all specializations in the branches in the college.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Enable the student to understand the subject of computers. 2. The student knows the types and components of the computer and the special terminology used about it. 3. To know the information technologies and the extent of benefit from them and the extent of their development. 4 .That the student knows the operating systems and their importance and how to use them to benefit from the use of the computer for the desired purpose 5 .That the student knows the use of ready-made applications in printing and mastery in it and the work of electronic tables, statistics and graphs, as well as presentations. 6. The student understands the Internet and knows how to use it and benefit from it. 7 .That the student knows the study remotely by using one of the educational platforms approved by the educational institution in dealing with it and communicating with the subject's professor in obtaining lectures and assignments, providing homework solutions and performing quick choices and exams.

Intellectual Skills	1. Enable the student to formulate problems in a way that enables the use of a computer that helps to solve these problems, in addition to carrying out a logical organization and analysis of data, by representing data through abstractions such as models and simulations, and identifying, analyzing and implementing possible solutions in order to reach the most efficient mixture Scientific and effective steps and sources. 2. Microsoft Office application skills. 3. To contact via email. 4. Visual display of information. 5. Professional use of search engines.
Professional Skills	1. Enable the student to understand the computer and benefit from it in the field of medical work. 2. The student will be able to use CDs and CDs that include medical topics to increase his knowledge. 3. The student is able to use simulation models in anatomy, biology, surgery, internal medicine and other subjects.
General and Transferable Skills	Preparing a specific project in the laboratory.
Attitude outcomes	

Course structure			
topic	No. Of lectures	No. Of labs	Lecturer
Computer and information technology concepts	4	4	assistant teacher: Raghad Muhammad Suleiman
Windows 10	4	8	Assistant Professor Rukaya Zedan
Ms-word 2016	4	8	Assistant Professor Rukaya Zedan
Ms-power point 2016	4	8	assistant teacher Muna Zedan hamdy
Ms-Excel 2016	4	8	Teacher dhafar fakhri

Internet	5	10	assistant teacher Maha Abdel Hady

Teaching and learning methods	
Theoretical lectures	Lectures take place 2 times per week for each group (there are 2 groups A ^ B) and a total period 2 hours weekly for two groups. The lecture hall in the building of the Deanship of the Faculty of Medicine.
Practical labs or clinical sessions	The students are divided into small groups each of 2-3 students for one laptop computer .
Seminars and presentations	

Assessment methods	
Formative assessments	1.Discussion and oral exams . 2.Individual competition (adding grades for those who perform what the professor asks first).
Summative assessments	1. Written exams. 2. Practical exam.
Pass mark	50 %

Resources and requirements	
Essential text books	online resources
Recommended text books	Computer skills windows 10 (Hardware and Software) By Prof. Dr. Mohamed Bilal Al Zoubi Prof. Dr. Ahmed Al-Sharia University of Jordan

	Suhair Abdullah Khaleda Mohammed Al Zoubi
Other resources	(Web Sites) https://books.google.iq/books?hl=ar&lr=&id=XkjuCQAAQBAJ&oi=fnd&pg=PP1&dq=microsoft+office+2016&ots=c3hJHIkg5J&sig=VzyVtg3U26XVJFa4pwBC5N8EW38&redir_esc=y#v=onepage&q=microsoft%20office%202016&f=false

حقوق الانسان والديمقراطية

وصف المقرر

1. المؤسسة التعليمية	وزارة التعليم العالي والبحث العلمي
2. القسم الجامعي / المركز	كلية الطب / حقوق الانسان والديمقراطية
3. اسم / رمز المقرر	حقوق الانسان والديمقراطية/مرحلة أولى
4. الرابط	http://uomosul.edu.iq/pages/ar/medicineMosul/90704
5. البرامج التي يدخل فيها	قانوني
6. أشكال الحضور المتاحة	حضور الطالب امر ضروري ويمكن التعلم عن بعد
7. الفصل / السنة	سنوي
8. عدد الساعات الدراسية (الكلي)	15ساعة نظري الفصل الاول + 15ساعة نظري الفصل الثاني اي 30 ساعة خلال السنة كاملة
9. تاريخ إعداد هذا الوصف	

أهداف المقرر

يهدف المقرر الى تدريس مادة حقوق الانسان والديمقراطية لطلبة المرحلة الاولى في كلية الطب . حيث تمكن الطالب من دراسة حقوق الانسان والتعرف على مبادئها واساسياتها وكذلك التعرف على كل اقسام حقوق الانسان وكل المواثيق الدولية والداخلية المتعلقة بموضوع الدراسة ،اضافة الى التعرف على القوانين الداخلية للدولة ومدى تطبيق حقوق الانسان في كافة المجالات والاختصاصات فهي مادة تثقفية قانونية .و تمكن الطالب من تطوير مستوى قراءته خاصة فيما يتعلق بطلاب المرحلى الاولى .

مخرجات التعلم وطرائق التعليم والتعلم والتقييم

أ- المعرفة والفهم

أ1- تمكن الطالب من الاحاطة بموضوع حقوق الانسان والديمقراطية على مستويات مختلفة .

أ2- تمكن الطالب من اطلاعه على واقع تطبيق حقوق الانسان في المجتمع .

أ3- يتعرف الطالب من خل هذه المادة على كل القوانين الداخلية الخاصة بتطبيق حقوق الانسان .

أ4- يستطيع الطالب من خلال الدراسة فيما اذا كان يتمتع بحقوق الانسان ام لا؟.

5 تقوي الطالب على فهم المصطلحات القانونية المتعلقة بحقوق الانسان

ب - المهارات الخاصة بالموضوع ب1 – تمكن الطالب من فهم المصطلحات القانونية والتعرف على جميع اقسام حقوق الانسان . ب2 – تمكن الطالب من زيادة المفردات القانونية لدى الطالب . ب3 – تمكن الطالب من تطبيق القانون على ارض الواقع . ب4- البحث في النت عن مواضيع كمصدر لدراسته من خلال كتابة تقرير في موضوع معين .
طرائق التعليم والتعلم
- المحاضرة النظري والمناقشة
طرائق التقييم
- اختبارات تحريرية - مناقشة واختبارات شفهية. - منافسة فردية (اضافة درجات لمن يؤدي ما يطلبه الاستاذ اولا) .
طرائق التعليم والتعلم
طريقة المناقشة
طرائق التقييم
الملاحظة اختبار شفوي الاختبارات التحريرية
د - المهارات العامة والمنقولة (المهارات الأخرى المتعلقة بقابلية التوظيف والتطور الشخصي). د1- اعداد تقارير خاصة بالموضوع د2-المنافسة بين الطلبة من خلال المشاركة

بنية المقرر					
الأسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة / المساق أو الموضوع	طريقة التعليم	طريقة التقييم
1-4	2 ساعة	التعريف بحقوق الانسان	التعريف والخصائص	محاضرة نظري	اختبار
5-8	2 ساعة	تصنيفات حقوق الانسان	الحقوق المدنية والسياسية	محاضرات نظري	اختبار
9-11	2 ساعة	حقوق الانسان الجماعية	حقوق الشعوب في تقرير مصيرها	محاضرات نظري	اختبار
12-15	2 ساعة	حقوق الانسان في زمن الاحتلال والحرب	حقوق الأسير	محاضرات نظري	اختبار

16-19	4 ساعة	الديمقراطية	تعريف الديمقراطية وانواعها	محاضرات نظري	اختبار
20-24	5 ساعة	الحكومات	تعريف الحكومات وانواعها	محاضرات نظري	اختبار

البنية التحتية	
القراءات المطلوبة : ▪ النصوص الأساسية ▪ كتب المقرر ▪ أخرى	كتب قانونية والاستعانة بمصادر من الانترنت
متطلبات خاصة	قاعة دراسية
الخدمات الاجتماعية	لايوجد

English language

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Dean's Office/ Electronic website Unit	
Name of Academic Program	MBChB	
Academic Year/level	First year	
Title of the course	English Language	
Code	MCEn108	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=2 hours per week	Total=45 hours per semester
	Theoretical hours= 1 hour per week	
Date of specification approval	16/11/ 2022	

General Aims of Course
1. Communication of the students with the English language and improve their language ability in their medical field. 2. To develop students' understanding of the nature of the basic rules of the English language necessary for writing and speaking.

3. Applying English rules by giving examples that help students understand rules of English in order to improve their level of writing in English language in an academic form.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Enable the student to comprehend the subject of the English language at different levels. 2. Enable the student to rate his / her reading and evaluates the level of his writing style. 3. To enable the student analyze his / her writing and attempt to implement the techniques of developing writing style and investigate how to use and benefit from them. 4. To help the student how to produce or construct his/ her speech or conversation in accurate way.
Intellectual Skills	1. To recognize and implement the rules of the English language necessary for writing and speaking. 2. To compose a good piece of writing in the accurate English language. 3. To argue the ideas in any spoken or written text in a logical and scientific way. 4. To analyze and differentiate the rules and the foundations of the English language by analyzing pure medical texts which are the core of their medical specialization to consolidate these rules in their minds.
Professional Skills	1. To use the methods of the English language and get a benefit from it in the field of his medical work, such as preparing PowerPoint for seminars and writing a short medical scientific article. 2. To employ various and tremendous linguistic vocabulary. 3. To assess various types of articles and how to argue them in the subject of the medical field. 4. To estimate language of medical texts in an accurate way.
General and Transferable Skills	1. Composing short medical paragraphs and articles on the medical subject in the classroom. 2. Implementing the exercise. 3. Writing and rewriting medical texts.
Attitude outcomes	The students will be able to evaluate texts well. Add, they will be able to recognize the defects of any text at the level of language. Consequently, the students will get knowledge the importance of producing coherent text.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Unit one am/is/are/ unit 1- Presenting Complaints	3	6	Dr. Nida S. Omar
Unit 2: Countries Unit 2- Working in General Practice	3	6	Dr. Nida S. Omar
Unit 3: Jobs Unit 3- instructions & Procedures	3	6	Dr. Nida S. Omar
Unit 4: Our/Their Unit 4- Explaining & Reassuring	3	6	Dr. Nida S. Omar
Unit 5: Sports, Food & Drinks Unit 5-Dealing with Medication	3	6	Dr. Nida S. Omar
Unit 6: The time unit 6- Lifestyle	3	6	Dr. Nida S. Omar
Unit 7: Question words Unit 7-Parents and Young Children	3	6	Dr. Nida S. Omar
Unit 8: Rooms & Furniture Unit 8- Communication	3	6	Dr. Nida S. Omar
Unit 9: Saying years Unit 9-Working in Psychiatry	3	6	Dr. Nida S. Omar
Unit 10: Past Simple Unit 10- Terminal illness and Dying	3	6	Dr. Nida S. Omar

Teaching and learning methods	
Theoretical lectures	-Understanding method Identify, classify, and interpret the structure of English texts. -Discussion method Recalling the information . - Evaluation methods Observation -Applying methods How to analyze a text and solve it correctly.
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	No more

Assessment methods	
Formative assessments	1. Requesting the student to do short comparative assignments to know how the students are performing against their colleagues as homework. 2. Classroom discussion and quizzes 3. Think –pair -share : Students will be in pairs or in small -groups in order to answer question or to solve a problem associated with allocated reading or a particular topic.
Summative assessments	1. Standardized tests 2. final report
Pass mark	50%

Resources and requirements	
Essential text books	1. Headway academic skills for beginners 2. Oxford English for careers: Medicine 1 student's book (practical)
Recommended text books	1. Murphy, R. (2012).English Grammar in Use. Cambridge University Press, London. 2. Eastwood, J. (1994). Oxford Guide to English Grammar. Oxford University Press. Hong Kong. 3. Downing, A and Locke, Ph. (2006). English Grammar. Routledge.
Other resources	medical articles

Second Year

Medical Physiology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Medical Physiology	
Name of Academic Program	MBChB	
Academic Year/level	2nd year /2022-2023	
Title of the course	Medical Physiology	
Code	MCPs201	
Total Course Hours	Practical hours=90	Total=240
	Theoretical hours=150	
Date of specification approval	11/11/2022	

General Aims of Course

Human Physiology is the study of how the human organs work normally. As well as how these organs work in coordination with each other under normal conditions. This coordination leads the human to use the physiology when exercise, read, breathe, eat, sleep, move or do just about anything.

Human physiology aims to study all the physiological organ systems like: the cell and body fluid, the muscular system, the nerve and autonomic nervous system, the blood and immune system, the respiratory system, the cardiovascular system, the digestive system, the endocrine system, the reproductive system, the renal and acid base balance and the central nervous system.

Each physiological system works to perform different functions in the body. In addition to that, each system works with every other system to keep the human alive.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1:Differentiate between the basic function of each body system of the human being. 2: have a good knowledge about the clinical physiology
Intellectual Skills	1. mention all the clinical investigation that are needed to investigate the organ systems and the normal ranges levels. 2. ask an important questions at the end of lectures that improve their thinking and their knowledge. 3. the students response to the lecturer questions at the end of each lecture that improve their memory and ways of answer. 4. present the seminars and they are ready to answer the teachers questions about the seminar information. 5. prepare poster about any physiological system and discuss the poster and answer any asked question from teachers and students.
Professional Skills	1. perform all the clinical investigation of human physiology at the medical laboratory or at hospital.
General and Transferable Skills	1. have a skills in using medical instrument and how they can connect them to the subjects. 2. defend them self when there is wrong results as they know the reason of the fault (as technical problem in instruments) 3. perform experiments and compare their result with normal ranges and they can give their decision and diagnosis
Attitude outcomes	The student appreciate their medical information and able to use and keep the all instrument in safe way.

Course structure

Topic	No. Of lectures	No. Of labs	Lecturer
Introduction to physiology	1		Dr. Afraa Alameen
Cell and body fluid	4	-	Dr. Janan Alrefaee
Muscle and nerve	10		Dr.Bushra Aldbak , Dr.Hind Alane
Autonomic nervous system	5		Dr. Afraa Alameen
Blood physiology	14	28	Dr.Janan Alrefaee
Respiratory system physiology	14	20	Dr. Afraa Alameen
Cardiovascular system	14	20	Dr. Zayd Alatrakjy

Gastrointestinal tract	14		Dr. Rajaa Alhasan
Endocrine	14		Dr.Zayd alatrakjy
Reproductive	8		Dr.Rajaa Alhasan
Renal and acid base	18		Dr.Janan Alrefaee
Sensory nervous system	10	6	Dr. Afraa Alameen
Motor nervous system	10	6	Dr. Rajaa Alhasan
High brain function	5		Dr. Rajaa Alhasan
Special sense	10	10	Dr. Zayd Alatrakjy

Teaching and learning methods	
Theoretical lectures	Lectures :The student are distributed in 2 large groups
Practical labs or clinical sessions	The students are distributed into small groups each of 10-15 students.
Seminars and posters presentations	Each 5 students participate in preparing and presenting the seminars and posters.

Assessment methods	
Formative assessments	1. logbook 2. Q& A at the end of the lectures 3. students will participate in making questions and answered them at the end of the lectures
Summative assessments	1.mid year exam (practical 10%+theoretical 30%) 2.final exam (practical 15%+ theoretical 40%) 3. quiz 2% +seminars and other activities 3%)
Pass mark	50%

Resources and requirements	
Essential text books	1. Guyton and Hall Textbook of Medical Physiology 2..Ganong' s Review of Medical
Recommended text books	Lippincott's Illustrated Reviews: Physiology
Other resources	Lectures and practical labs information

Links	
Respiratory /Dr. Afraa	https://drive.google.com/drive/folders/1fcNy8OH4BDIcwqs6qdg3NSCZSaq1Ei_q?usp=share_link
Muscle	https://drive.google.com/drive/folders/14__yo7Hj-8fI3do1d2ltBiwVoWOE3YCx?usp=share_link

Anatomy

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Anatomy	
Name of Academic Program	MBChB	
Academic Year/level	2nd year	
Tilte of the course	Gross anatomy	
Code	McAn202	
Total Course Hours	Practical hours=180	Total=240
	Theoretical hours=60	
Date of specification approval	1/9/2022	

General Aims of Course
The overall aim of the course is to provide the students with the basic anatomical knowledge of

the normal structure of the human body at the level of the head, neck, brain, spinal cord, abdomen and pelvis and to integrate these anatomical facts with more advanced knowledge of clinical sciences

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	- Describe the principal distinguishing features of bones of the skull. - List the muscles of the head as well as neck and their main action and nerve supply. - List the layers of the scalp. - List the cutaneous nerves of scalp and face. - Describe the boundaries and contents of the triangles of the neck. - Describe the subclavian, common carotid arteries. - Describe the internal jugular vein and vagus nerve. - Understand the anatomical and clinical importance of the thyroid gland. - Understand the anatomical and clinical importance of the salivary glands. - List the lymphatics of head and neck. - Describe the muscles of mastication. - Describe orbit, ear and nose. - Describe the mouth and tongue. - Describe the pharynx and larynx. - Describe the meninges. - Describe the venous sinuses. - List the parts of brain and spinal cord. - List the parts and structure of cerebellum. - Define the ventricles of the brain. - Describe the midbrain. - Describe the components of the cerebrum and diencephalon. - Describe the basal ganglia. - Describe the white matter of brain. - Understand the functional localization areas of brain. - Describe the parts and structure of spinal cord. - List the blood supply of brain and spinal cord. - Describe the circulation of CSF. - List the autonomic nervous system. - Describe the principal distinguishing features of bones of the abdominal region. - Describe the surface anatomy of abdominal wall. - List the muscles of the abdominal wall. - List the nerve and blood supply of abdominal wall - Define the rectus sheath.

	- List the contents of rectus sheath. - List the boundaries and contents of the inguinal canal. - Understand the clinical importance of the inguinal canal. - Describe peritoneum. - Describe the anatomy, blood and nerve supply of stomach, spleen, liver and gall bladder. - Describe the anatomy, blood and nerve supply of pancreas, small and large intestine. - Describe the Portal vein and portal circulation & Lymphatic drainage of abdomen. - List the branches and tributaries of abdominal aorta and inferior vena cava. - Describe the Autonomic innervation of abdomen and Lumbar plexus. - Describe the anatomy, nerve supply, blood supply and lymphatics of kidneys and the suprarenal glands. - Understand the anatomy, nerve and blood supply of the diaphragm. - Describe the principal distinguishing features of bones of the pelvis. - List the muscles and contents of perineum. - Describe the male and female urethra and bladder. - Describe the genital organs in both sexes. - Understand the clinical importance of pelvic diaphragm. - List the blood supply and nerve supply of the pelvis.
Intellectual Skills	- Integrate the anatomical facts with the basic clinical knowledge required for proper examination of a patient in order to reach a proper diagnosis - Relate the surface markings of different structures and determine the position or course of internal structures - Correlate the anatomical knowledge with clinical signs seen in cases of injuries of male urethra and scalp.
Professional Skills	- Locate the cranial nerves and evaluate their functions. - Locate the carotid artery pulsation for efficient resuscitation. - Locate the level of lumbar puncture. - Locate the exact site of inguinal canal to determine the type of inguinal hernia. - Elicit the normal anatomical structures on X-rays
General and Transferable Skills	- read and appraise scientific papers related to anatomy - present scientific facts in a well-organized matter - use advanced technology to search for facts and prepare presentations - work as an effective team member

Course structure			
topic	No. Of lectures	No. Of labs	Lecturer
Head and neck	18	27	Dr. Omar Riadh
Neuroanatomy	18	27	Dr. Maysoon
Abdomen	16	24	Dr. Ahmed Hisham
Pelvis	8	12	Dr. Ashraf, Dr. Mohammed

Teaching and learning methods	
Theoretical lectures	2 lectures / week
Practical labs	The students are divided into small groups each of 10-15 students Plastinated cadavers, skeletons, bone and organ specimens will be available for students X-ray imaging films will be available to learn different bonny landmarks
Seminars and presentations	Each 5-7 students are required to present a seminar on specific subject

Assessment methods	
Formative assessments	- formative quiz during lectures - discussion panels during assessment lab - completing Logbook
Summative assessments	1. midyear exam: 30% (10 practical, 20 theoretical) 2. final exam: 70% (20 practical, 50 theoretical).
Pass mark	50%

Resources and requirements	
Essential text books	1. Cunningham`s Manual of Practical Anatomy, (theoretical and practical, vol. 2 and 3)  2. Grant Atlas of Anatomy.  3. Snell`s Clinical Anatomy by Regions
Recommended text books	1. Gray's Anatomy 2. Atlas of Human Anatomy by FH Netter.
Other resources	Will be included in the lectures accordingly

الرابط	المادة / المرحلة / اسم التدريسي
https://drive.google.com/drive/u/1/folders/1W_X13csfRaYfI5aZA_0t4tV2RMPqDSTd	م.د. عمر رياض حمدي
https://docs.google.com/document/u/1/d/1c55YtkpfAxBffRE7gpqKr3hQfcKa5VXS/edit?usp=share_link&ouid=114034693356478938573&rtpof=true&sd=true	ا.م.د. ميسون محي الدين القزاز
https://drive.google.com/drive/folders/1gYxQC-prGgcZaEW5fiVpY6jeqksm4jQM?usp=share_link	المرحلة الثانية / ا.م.د. احمد هشام قاسم

BIOCHEMISTRY

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he\she has made maximum use of the available learning opportunities.

Educational Institution/ college	**CMUM**	
Department offering the course	**Biochemistry**	
Name of Academic Program	**MBChB**	
Academic Year/level	**Second year**	
Title of the course	**Biochemistry**	
Code	**McBi 22 203**	
link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	**Practical hours=60**	**Total=150**
	Theoretical hours=90	
Date of specification approval	**15/11/2021**	

General Aims of Course

The scientific-knowledge building, employing the ability and refining the skill, in order to assimilate the scientific foundations in the subject of biochemistry, in order to understand and assimilate the natural chemical reactions that take place inside the human body.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Recall the basic concepts of major body metabolism and its important biochemical pathways and reactions. 2. Repeat the mechanisms of different diseases that develop due to metabolic derangements and/or genetic mutations. 3. Recognize the possible treatment of different diseases by analyzing the metabolic (or molecular) etiology. 4. Arrange how to make final diagnosis of common chronic diseases that develop due to disturbances of body metabolism by using biochemical and/or molecular laboratory tests. 5. Arrange signs and symptoms and expect the clinical findings of a disease that results from disturbances in body metabolism. 6. Describe what they learned about metabolic diseases to patients in their families and friends with confidence based on the knowledge they acquired. 7. Select the appropriate body specimen to conduct the appropriate lab analysis that aids in confirmation of diagnosis of different diseases and acquire the necessary knowledge to conduct the lab experiments with the ability to interpret results.
Intellectual Skills	1 -Identify the link between the materials produced from raw materials, understand their path, and try to transform them from their natural path to other paths for more benefit. 2- Arrange to transform the paths of harmful produced substances into harmless substances, especially inside the body 3- Predict the means of analysis and selection of the resulting materials and increase their specialization
Professional Skills	1.Judge the modifications that occur as a result of a few interactions within the body and the unnatural substances resulting from them that lead to various types of diseases 2.Interpret the means of analysis and measurement of models taken from the human body, especially blood and other physiological or pathological models, which help in diagnosing diseases or assessing the health or treatment status
General and Transferable Skills	1- Summarize skills in the use of materials and equipment and the necessities that support them in verification, measurement and evaluation 2- Test and follow up students practically, directing them and alerting them to the possible specialized dangers as a result of their work, especially for the unscheduled and inferred judgments from their activities in personal development and assigning distinctive abilities to be on the right track.
Attitude outcomes	the student will be able to recognize any ethical problems in relation to the topics and act accordingly, the student will acknowledge the importance of wearing gloves and mask in chemical lab

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Vitamins	7	1	Dr. Sura Khairuddin (Lecturer)
Enzymes	5	4	Dr.Mariam Hani (Lecturer)
Nucleic acids	12	2	Dr. Amjad Hazim (Lecturer)
Amino acids and protein	10	4	Dr..Hazim Allawi (Ass.prof.)
Carbohydrates	10	4	
Hormones	15	4	Dr..Hazim Allawi (Ass.prof.)
Lipid metabolism	8	4	Dr. Sura Khairuddin (Lecturer)
Bioenergetics and Biological Oxidation	6		Dr. Ehsan Hassan (Lecturer)
Nutrition	6		Dr.Mariam Hani (Lecturer)
Porphyrins	4	1	Dr. Ehsan Hassan (Lecturer)
Trace elements	2	1	Dr. Sura Khairuddin (Lecturer)
Tumor markers	2	1	Dr. Amjad Hazim (Lecturer)
Liver function test	1	1	Dr. Amjad Hazim (Lecturer)
Renal function test	1	3	Dr..Hazim Allawi (Ass.prof.)
Selected topics	1		Dr. Amjad Hazim (Lecturer)

Teaching and learning methods	
Theoretical lectures	3 lectures \week
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	Students are presenting about different topics in biochemistry through seminars conducted by 3-5 students and encouraged to make scientific posters. They are subjected to thorough discussion by teaching staff and colleagues.

Assessment methods	
Formative assessments	1. Fast quizzes at the end of lecture 2. Asking students to answer two or three questions (may be an MCQ), explain a mechanism or a finding and react with slides and discussion within the lecture minutes. 3. Electronic assignments to the class (using google forms) 4. Case interpretations in the lab (students will discuss some lab results to settle differential diagnosis) 5. Seminar discussion (the teacher and/or student select a topic and present it with thorough discussion).
Summative assessments	1. End of term (1st. and 2nd.) exam in practical biochemistry using manual work (experiments) or oral examination. Students are rewarded 7.5% of total marks for each term. 2. Final Exam in practical biochemistry (usually oral examination, spot examination or students are subjected to written assessment). Students are rewarded 10% of total marks. 3. Mid-year and final written examinations in theoretical knowledge (student has to answer MCQ questions and short essay questions). Students are rewarded 25% and 50% of total marks respectively.
Pass mark	50%

Resources and requirements	
Essential text books	1. Lippincott's illustrated reviews of Biochemistry 2. Review of physiological chemistry by H A Harper
Recommended text books	Tietz Textbook of Clinical Chemistry and Molecular Diagnostics, by Nader Rifai, 6th Edition.
Other resources	Theoretical and practical lectures in all the mentioned specializations

Histology

Course Description

This course description provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve and demonstrating whether he has made the most of the available learning opportunities. It must be linked to the description of the program.

Educational Institution/ college	CMUM	
Department offering the course	Anatomy	
Name of Academic Program	MBChB	
Academic Year/level	2nd year	
Title of the course	Histology	
Code	McAn204	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 90	Total=135
	Theoretical hours=45	
Date of specification approval	1/9/2022	

General Aims of Course

The overall aim of the course is to provide the students with the basic histological knowledge of the normal tissues of human in different organs and to integrate these histological facts with more advanced knowledge of clinical sciences

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	- Describe the histological characteristics of normal cells - Describe the structural characteristics of the four basic tissue types, bone & cartilage - Define and discuss the basic histological structure of Vascular system - Define and discuss the basic histological structure of Lymphatic system - Define and discuss the basic histological structure of Endocrine system - Define and discuss the basic histological structure of Respiratory system - Define and discuss the basic histological structure of Renal system - Define and discuss the basic histological structure of Digestive system - Define and discuss the basic histological structure of Reproductive system - Define and discuss the basic histological structure of Skin, Eye, Ear
Intellectual Skills	- Select appropriate methods to reveal specific microscopic features of cells and tissues. - Correlate between histological structure & function of any cell or tissue. - Interpret a complete blood picture report.
Professional Skills	- Illustrate the instruments and techniques used to prepare and study histological specimens. - Use the microscope efficiently. - Handle the histological glass slides and examine them using the maximum microscopic facilities. - Identify various types of stains & micro techniques. - Elicit different cell organelles. - Differentiate between different blood cells in blood films & recognize a differential leucocytic count. - Differentiate between different types of epithelium, connective tissue cells, connective tissue proper & bone cells. - Differentiate between different organs in histological slide seen under the microscope. - Draw and label the structures they have seen in electron photomicrographs and under light microscope during practical classes.

	- Elicit histological slides of tissues and organs.
General and Transferable Skills	- Adopt the importance of lifelong learning and show a strong commitment to it. - Use the sources of biomedical information to remain current with advances in knowledge and practice. - Collect information to enhance self-study and education. - Express themselves freely and adequately by improving their descriptive capabilities and presentation skills and enhancing their communication skills.

Course Structure

Topic	No. of Lectures	No. of labs.	Lecturer
Introduction to Histology	1	-	Dr. Rana. M. Raoof
Cardiovascular System	4	6	Dr. Faten Thanoon
Lymphatic System	3	6	Dr.Semaa Abdulqader
Digestive System	8	30	Dr.Rana Mustafa
Respiratory System	3	6	Dr.Semaa Abdulqader
Endocrine System	5	6	Dr.Rand Abdulateef
Renal System	3	6	Dr.Muna Zuhair
Female Reproductive System	5	24	Dr.Maha Al-Sammak
Nervous System	3	6	Dr.Muna Zuhair
Male Reproductive System	3	6	Dr.Maha Al-Sammak
Skin	3	6	Dr.Faten Thanoon
Eye	2	6	Dr.Rand Abdulateef
Ear	2	6	Dr. Wasan Waadalla

Teaching and learning methods	
Theoretical lectures	2 lectures / week

Practical labs	The students are divided into groups each of 40 students Electronic program of Histology guide with slides presented in data show
Seminars and presentations	Each 5-7 students are required to present a seminar on specific subject

Assessment methods	
Formative assessments	6. formative quiz during lectures 7. discussion panels during assessment lab 8. completing Logbook
Summative assessments	1. midyear exam: 30% (10 practical, 20 theoretical) 2. Final exam: 70% (15 practical, 55 theoretical).
Pass mark	50%

Resources and requirements	
Essential text books	Mesher, A. (2013) Junqueira's Basic Histology Text & Atlas 13th ed, McGraw-Hill
Recommended text books	Young, B., O'Dowd, G. and Woodford, P. (2014) Wheater's Functional Histology. A Text and Color Atlas 6th ed. Churchill Livingstone, Edinburgh
Other resources	Eroschenko, VP and di Fiore MSH (2013) di Fiore's Atlas of Histology with functional correlations. 12th ed. Wolters Kluwer / Lippincott, Williams & Wilkins Int., Baltimore.

المادة / المرحلة / اسم التدريسي	الرابط
ا.د. مها عبدالجبار السماك	https://drive.google.com/drive/folders/171H2Rbnp7SaUhQo2f5ltm2gSgSwBDX5u?usp=share_link
م.د. فاتن ذنون عبدالرحمن	https://drive.google.com/drive/folders/1JmWZ-OMWovPmhqmk77Mq78mPpzQ5QSkC?usp=sharing
ا.م.د. منى زهير عبدالكريم	https://drive.google.com/drive/folders/1LPuLbs4XDTxSfVzMDePEES5wZ2oHEit1?usp=share_link
م.د. سيماء عبدالقادر احمد	https://drive.google.com/drive/folders/1R4TaGt62uiwSTN8Z8VY85vozVXt8EM8c?usp=share_link
م.م.د. وسن وعدالله عزيز	https://drive.google.com/drive/folders/1Islf3geopslcYFTMWaW34y5qPtPd1W8z

Embryology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Anatomy	
Name of Academic Program	MBChB	
Academic Year/level	2nd year	
Title of the course	Embryology	
Code	McAn205	
Link د. لمى العلاف	https://drive.google.com/drive/folders/1lCVNPHsOV9Iv0ApstdzAZkbdv6wZzw7J	
Total Course ours	Theoretical hours=30	Total=30
Date of specification approval	1/9/2022	

General Aims of Course

The overall aim of the course is to provide the students with the basic knowledge in embryology and to define the important stations regarding the normal development with discussing the features of abnormal development and to integrate these anatomical facts with more advanced knowledge of clinical sciences

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	• Describe the principle of gametogenesis • List the steps of oogenesis and spermatogenesis. • Define the stages of menstrual cycle. • Define the steps of ovulation. • Describe the steps of fertilization. • Describe the abnormal gametes. • Describe the implantation. • Understand the clinical importance of abnormal implantation sites. • Describe the cleavage. • List the steps of development in days. • Describe the features of bilaminar germ disc. • List the characteristics of trilaminar germ disc. • Describe the somites development. • List the derivatives of germ layers. • Describe the clinical points regarding the trilaminar germ disc development. • Describe the characteristics of embryonic period. • Describe the characteristics of fetal period. • List the causes of intrauterine growth retardation. • List the components of the extraembryonic structures. • Define the placenta. • Describe the development of umbilical cord. • Describe the abnormalities of umbilical cord. • Describe the abnormalities of placenta. • Describe the development of branchial apparatus. • Describe the abnormalities of branchial apparatus. • Understand the development of gastrointestinal system. • Describe the abnormalities of development of gastrointestinal system. • List the development of skeletal system. • List the abnormalities of development of skeletal system. • List the steps in development of genitourinary system. • Describe the abnormalities of development of genitourinary system. • List the development of respiratory system. • Define the development of face. • Define the development of tongue. • Define the development of thyroid gland.

Intellectual Skills	• 1-Integrate the embryologic facts regarding the steps of development of systems. • 2-make a base that is required to define the diagnosis of some clinical cases. • 3-understand the steps in treatment of some clinical cases. • 4-Understand the relation between the embryologic facts and the anatomy of each region. • 5-Make a comparison between the normal and abnormal cases of development by methods (as ultrasound and examination) to reach the diagnosis of cases in right academic way. • 6-reach the suggested surgical treatment give a differential diagnosis of the common pathological cases. • 7-defining the complication of the common cases.
Professional Skills	• Define the expected day of delivery of pregnant. • Diagnose the location of placenta and fetus and identify the amount of liquor by imaging techniques. • Define some features of intrauterine growth retardation. • Diagnose some abnormalities regarding fetus and placenta.
General and Transferable Skills	• read and appraise scientific papers related to embryology • present scientific facts in a well-organized matter • use advanced technology to search for facts and prepare presentations • work as an effective team member

topic	No. Of lectures	Lecturer
General embryology	15	1- Assist. Prof.Dr. Luma I. Al-allaf 2-Lecturer.Dr.Rana Mustafa
Special embryology	15	

Teaching and learning methods	
Theoretical lectures	1 lecture / week
Seminars and presentations	Each 5-7 students are required to present a seminar on specific subject

Assessment methods	
Formative assessments	formative quiz during lectures
Summative assessments	1. midyear exam: 30% (theoretical) 2. Final exam: 70% (theoretical).
Pass mark	50%

Resources and requirements	
Essential text books	Langman's medical embryology
Recommended text books	1.Obstetrics by Ten Teachers, 2. Grant Atlas of Anatomy 3. Snell`s Clinical Anatomy by Regions
Other resources	Will be included in the lectures accordingly

Medical Ethics

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul / college of medicine	
Department offering the course	Radiology	
Name of Academic Program	MBChB	
Academic Year/level	Second Grade	
Title of the course	Accreditation Program	
Code	Medical Ethics / MCCo206	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 0	Total= 30
	Theoretical hours= 30	
Date of specification approval	20-9-2022	

General Aims of Course

The course aims to provide students with the necessary and sufficient information in medical ethics and professional behavior so that the student is able to apply the necessary practices and medical ethics when practicing the profession in the future .

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Demonstrate ethical awareness . 2.the ability to do ethical reflection 3.the ability to apply ethical principles in decision-making. 4.Developing a student's ethical awareness, reflection, and decision-making ability is central to a Core Curriculum.
Intellectual Skills	knowledge During initial years of undergraduate training in the 1st and 2nd year professional, stress will be given on the knowledge aspect more. Knowledge will be built up from understanding the various learning documents and regulations to ethical codes, research guidelines, guidelines of good clinical practice, drugs and consumer protection acts .
Professional Skills	Skill and attitude During final professional, starting from the late 2nd professional itself, hands-on and practical training in dealing with ethical conflicts and dilemmas, communication skills, reaction time, and attitude during crisis will be imparted in pragmatic conditions. Various objectives pertaining to skill and attitude domain
General and Transferable Skills	various methods can be field visits as community worker, panel discussion, debates, and conduct of skits. Portfolio can be used during rotational internship posting.
Attitude outcomes	Demonstrate awareness of the main professional obligations of doctors 1.Practice according to statutory requirements and codes of conduct for medical practice 2.Critically analyse ethical issues commonly encountered in medical practice and formulate a framework within which such issues could be resolved 3.Demonstrate the ability to resolve ethical issues faced during common clinical scenarios 3.Identify the ethical aspects involved in conducting research and apply , ethical principles in conducting research 4.Demonstrate sensitivity to ethical issues and ethical behaviour within and outside professional practice

Course structure			
Topic	No. Of lectures 15	No. Of lectures 15	Lecturer
Introducing the science of ethics and the sources of ethics A brief history of the emergence of medical ethics A brief history of the medical profession and medical professional conduct Basic principles of the medical profession The relationship of the doctor and his pharmacist colleagues	3	2	Dalia Abdul Qadir Nuri Tawfiq Al -Falaki
Ethics of dealing with treatment refusals principles of medical ethics Punishment for disclosing a secret Responsibility and experiences on the patient The doctor's relationship with his patients	3	2	Hadeel Muhammad Farook Ahmed Al –Hialy

Ethics of dealing with pharmaceutical companies Ethics in dealing with medical error Principles of medical professional conduct medical liability Responsibility and competence	3	2	Dr.Wasan Ali Attia
Molecular biology, genetic engineering technology and ethics for dealing with AIDS patients Public health ethical foundations for community medicine professional relationships General ethics in medical professional conduct Documentation of medical work	3	2	Ahmad Azhur Hashim

The ethical foundations of pediatrics and psychiatric ethics The ethical position of euthanasia or euthanasia The ethical aspect of organ transfer Doctor's relationship with fellow doctors Medical reports and doctor's testimony before the court	3	2	Marwa Ismail Khalaf Al -Khafaji
Ethical foundations in the practice of abortion, infertility and infertility Ethical foundations of the doctor-patient relationship Ethical principles in the practice of surgery Ethical aspects of mental illness Laws and the doctor	3	2	Muammar Abdel Ghafour Ibrahim Agha

Teaching and learning methods	
Theoretical lectures	
Small group teaching	The students are divided into small groups each of 6 students

Assessment methods	
Formative assessments	1.Half of the year exam , Theoretical exams (that include multiple questions MCQ & short Essay) , Use of electronic correction device OMR 2 .Final year exam , Theoretical exams (that include multiple questions MCQ & short Essay) , Use of electronic correction device OMR
Summative assessments	1. Paper-based test/assessment through mid-year and final year exams 2.Observation/evaluation during the lecture through participation . 3.Evaluate a lecture by the students at the end of the semester
Pass mark	50%

Resources and requirements	
Essential text books	World Health Organization, Sixty-third World Health Assembly, Agenda item 11-21 2010 Fifty-seventh World Health Assembly. 2004 German controls for the process of ants and the transplantation of human organs between neighborhoods, College of Law - Ain University Shams researcher / Mahmoud Thabet Mahmoud Ala Al-Shazly. Journal of Middle East Research Issue 44 The Kuwait Theme on the Islamic Constitution of the Medical Profession issued by the First World Conference on Islamic Medicine Baptized in Kuwait in the period 12-16/12/1981 Illnesses of Medicine A/D: Jamal Salih Jareh

THIRD YEAR

Pharmacology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Pharmacology	
Name of Academic Program	MBChB	
Academic Year/level	2022-2023/Third class	
Title of the course	Pharmacology	
Code	MCph 301	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours = 60 Theoretical hours = 90	**Total= 150**
Date of specification approval	5/10/2022	

General Aims of Course

1. To critically assess the basic concepts in pharmacology and the pharmacological basis of therapeutics.
2. To introduce students to the core principles of drug action in terms of bioavailability, pharmacokinetics, pharmacodynamics and mechanism of action of drugs in the treatment of diseases.
3. To introduce students to critically assess drug efficacy, side effects, toxicities, drug interactions and special emphasis on dosage concerns in special populations such as the young, pregnant women and in the elderly.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	The student after completing the course should be able to: 1. Explain how the fundamental pharmacological properties of pharmacokinetics and pharmacodynamics influence routes of administration; drug distribution and drug levels in the body; drug efficacy and potency; potential for drug-drug interactions; drug toxicity; and the appropriate choice of drug for pharmacotherapy in a given patient. 2. Explain how to use drug-specific and patient-specific pharmacokinetic parameters to calculate the physiochemical properties that influence rates of drug disposition and clearance in the body, and how these parameters can be used to monitor, design and modify appropriate dosing regimens of drugs in specific patient populations. 3. Describe the process by which new drugs are discovered, developed, tested and finally approved by the Federal Drug Administration for use in the clinic. 4. Discuss the fundamental principles of pharmacogenomics including how specific patient genotypes can influence the pharmacokinetic and pharmacodynamics properties of a drug, thereby affecting the clinical response to particular classes of medications. 5. Describe how pharmacogenomics approaches can be used to influence the drug discovery process and the choice of drugs in the treatment of specific diseases. 6. List the major drugs and drug classes currently used in medical practice and describe their pharmacology including their indications, contraindications, clinical use, mechanisms of action, physiological effects, pharmacokinetic properties, major adverse effects and clinically significant drug interactions. 7. Apply knowledge of the pharmacology of the major drugs and drug classes currently used in medical practice, together with both disease-specific and patient-specific factors to select the most appropriate medication(s) for the effective pharmacotherapy of a given disease or condition in a specific patient. 8. Demonstrate an understanding of the molecular, cellular and physiological mechanisms underlying the pathophysiological changes that occur in the etiology of the most common disease states and describe how targeting these mechanisms with the appropriate choice of drug(s) can act to effectively treat, cure, or mitigate the underlying disease causes and/or symptoms. 9. Discuss the theoretical considerations and principles that underlie the successful pharmacotherapy of the major diseases and conditions. 10. Recognize and explain the rationales behind the use of widely used, national organization-approved treatment algorithms for the management and treatment of common diseases and conditions, including identifying the currently accepted diagnostic criteria required to initiate drug therapy and the anticipated therapeutic goals likely to be achieved by therapeutic intervention. 11. Identify any clinical testing requirements for monitoring the effectiveness and potential toxicity of specific drugs used in the treatment of common diseases and conditions. 12. Explain the physiological, pharmacological, and psychological effects of acute and chronic exposure of individuals to drugs with abuse potential, and the consequences of sudden withdrawal of such a drug from a drug-dependent individual. 13. Describe the effective use of non-pharmacological therapeutic interventions in the treatment of specific diseases, conditions and symptoms. 14. Discuss the basic principles of toxicology; the mechanisms by which excess exposure to certain drugs, toxins, chemicals, heavy metals and poisons can lead to adverse toxicological effects; and the basic principles of clinically managing the poisoned patient. 15. Evaluate the relative advantages and disadvantages in the use of dietary supplements and herbal medications in the treatment of certain specific conditions or diseases, including their efficacy, potential for causing adverse effects and drug interactions. 16. Compare and contrast the major differences in the laws and regulations governing the approval, safety, efficacy and marketing of dietary supplements and herbal medications compared to conventional FDA-approved drugs.

Intellectual Skills	After completing this course, student should have the following skills: 1. Utilize pharmacological basis of therapeutics in the proper selection and use of drugs in various disease conditions. 2. Assess drug interactions and adverse drug reactions. 3. Rank commonly used drugs and high risk medicines . 4. Medication history taking. 5. Rational prescribing. 6. Drug dose calculation. 7. Demonstrate Prescription writing and Nondrug therapy. 8. Communication. 9. Reviewing prescriptions. 10. Adverse drug reactions. 11. Clinical toxicology. 12. Obtaining information from guidelines and protocols to support prescribing. 13. Monitoring medication.
Professional Skills	After completing the course, student acquires the following skills: 1. Undertake risk assessments concerning drug-drug interaction, adverse reaction, toxicity profile and incompatibilities in different pharmaceutical preparations. 2. Provide patients and health care professionals with advice about safe and proper use of medicine.
General and Transferable Skills	After completing the course, student can do the following: 1. Work effectively in a team in a variety of health care settings. 2. Acquire problem solving skills in groups for continuing professional development needs. 3. Demonstrate critical thinking and decision making abilities in a variety of theoretical and practical situations.
Attitude outcomes	1. Risk–benefit analysis. 2. Recognizing personal limitations in knowledge. 3. Recognition of a balanced approach to the introduction of new drugs. 4. Demonstrate professional and ethical behavior by honestly completing course examinations without attempting to seek an advantage by unfair means; and by reporting any unethical behavior of peers to the course administration.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Theoretical Pharmacology			
Introduction	6		Assoc. Prof. Ibrahim M. Faisal
Cholinergic System	6		Prof. Imad AJ Thanoon
Adrenergic System	5		Assoc. Prof. Shamil H. Othman
Anxiolytics, Sedatives, Hypnotics	3		Assoc. Prof. Shatha H. Mohammed
Antidepressants, Antiparkinsonians, Antiepileptics	4		Assoc. Prof. Shatha H. Mohammed
Local and General anesthetics	2		Assoc. Prof. Shatha H. Mohammed
Autacoids	6		Assist. Prof. Nada S. Mahmood
NSAIDs and Narcotic analgesics	3		Assoc. Prof. Shamil H. Othman
Drugs for Migraine and Gout	2		Assist. Prof. Nada S. Mahmood
Drugs for Cough and Asthma	3		Lecturer Omar M. Yaseen
Antiemetics and Drugs for Peptic ulcer	2		Prof. Imad AJ Thanoon
Drugs for IBS, Crohn's disease, Ulcerative colitis	3		Assoc. Prof. Shatha H. Mohammed
Drugs for Constipation and Diarrhea	2		Assoc. Prof. Ibrahim M. Faisal
Diuretic Agents	2		Assoc. Prof. Ibrahim M. Faisal
Drugs for Hypertension, CHF and Angina	5		Assoc. Prof. Shamil H. Othman
Antiarrhythmic Agents	2		Assoc. Prof. Shamil H. Othman
Anticoagulants and Antiplatelets	2		Assoc. Prof. Ibrahim M. Faisal
Drugs for Anemias	2		Assist. Prof. Nada S. Mahmood
Principles of Antimicrobial Therapy, Penicillins and Cephalosporins	4		Assoc. Prof. Shamil H. Othman
Sulphonamide and erythromycin	2		Assoc. Prof. Shamil H. Othman
Tetracyclines, Clindamycin, Aminoglycosides, Metronidazole, Chloramphenicol, Fusidic acid	6		Prof. Imad AJ Thanoon
Antivirals, Antifungals	2		Assist. Prof. Nada S. Mahmood
Antimalarials	1		Assist. Prof. Nada S. Mahmood
Steroids and Contraceptives	4		Assoc. Prof. Ibrahim M. Faisal
Drugs for Diabetes Mellitus	3		Assoc. Prof. Shamil H. Othman
Thyroid and Antithyroid Drugs	2		Assist. Prof. Nada S. Mahmood
Drugs for Hyperlipidemia	2		Assoc. Prof. Ibrahim M. Faisal
Drugs for Obesity	1		Lecturer Omar M. Yaseen
Cancer Chemotherapy	3		Assoc. Prof. Ibrahim M. Faisal
Practical Pharmacology			
Pharmacokinetics 1		2	Lecturer Omar M. Yaseen
Pharmacokinetics 2		2	Lecturer Omar M. Yaseen

Metrology		1	Assoc. Prof. Shatha H. Mohammed
Drugs for internal use		2	Assist. Prof. Nada S. Mahmood
Drugs for external use		2	Assoc. Prof. Shamil H. Othman
Prescription writing		1	Lecturer Omar M. Yaseen
Compounded prescription		1	Lecturer Omar M. Yaseen
Routes of drug administration		2	Lecturer Omar M. Yaseen
IV Fluids		1	Lecturer Omar M. Yaseen
Disinfectants		1	Lecturer Omar M. Yaseen
Drugs acting on rabbit eye		2	Assoc. Prof. Ibrahim M. Faisal
Experiment of anticonvulsants		1	Assoc. Prof. Shatha H. Mohammed
Dose modification in renal failure		2	Lecturer Omar M. Yaseen
Drug development and nomenclature		1	Lecturer Omar M. Yaseen
Determination of median lethal dose		2	Lecturer Omar M. Yaseen
Potassium iodide excretion		1	Lecturer Omar M. Yaseen
Adverse effects of ketamine		1	Assoc. Prof. Shatha H. Mohammed
Aspirin-induced gastric irritation		1	Assist. Prof. Nada S. Mahmood
Organophosphate poisoning		2	Lecturer Omar M. Yaseen
Erythrocyte fragility test for irritant drug		1	Lecturer Omar M. Yaseen

Teaching and learning methods	
Theoretical lectures	Lectures using Data show, The students are divided into groups each of 50-60 students.
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students .
Seminars and presentations	Designing therapeutic management and discussing it with demonstrators.

Assessment methods	
5. Formative assessments	1. Draw a concept map in class to represent their understanding of a topic. 2. Submit one or two sentences identifying the main point of a lecture. 3. Turn in a research proposal for early feedback.

	4. Homework exercises as review for exams and class discussions. 5. Reflections journals that are reviewed periodically during the semester.
6. Summative assessments	1. Written exam consisting of multiple choice questions with reasoning as well as open-ended questions to assess the students' knowledge of the drugs used in the studied diseases. The student will have to demonstrate the mastery of his knowledge and the understanding of the concepts and the evaluation is not limited to a restitution. 2. Practical examination to assess practical and case studies and problem solving.
7. Pass mark	50%

Resources and requirements	
Essential text books	1. Whalen K, Pharmacology (Lippincott® Illustrated Reviews: Pharmacology), 7th ed. (2019). 2. Bertram G. Katzung, Todd W., Basic & Clinical Pharmacology, 15th ed. (2020).
Recommended text books	Goodman and Gilman's, The Pharmacological Basis of Therapeutics, 14th ed. (2022).
Other resources	Pubmed.

Microbiology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he/she has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul/ College of Medicine	
Department offering the course	Microbiology Department	
Name of Academic Program	MBChB	
Academic Year/level	Third	
Title of the course	Microbiology	
Code	MCMi302	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 60 hours Theoretical hours=90 hours	Total=150
Date of specification approval	1/10/2022	

General Aims of Course

The main aims of this course are to:

1. Introduce the medical college student to the basic medical microbiology regarding types, classification, structure and composition of pathological and commensal bacteria, viruses and fungi .
2. Identify the pathogenic factors of different types of microorganisms.
3. Study the pathological and changes occur during infection
4. Introduce the student to the basic principles of medical immunology and immune response during infectious and noninfectious diseases.
5. Prepare students to understand and comprehend the concept of communicable diseases, their causes, and methods of diagnosis, treatment and prevention.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	**1.** Determine the basics of medical microbiology, medical virology medical mycology and immunology. **2.** Review the pathogenesis of microorganisms **3.** Review the pathogenesis of systemic inflammation and its relation to systemic tissue damage. **4.** Assess various laboratory tests for identifying and diagnosing types of bacteria, viruses and fungi. **5.** Develop a formula for laboratory diagnosis of infectious diseases and choose the most appropriate laboratory tests for the pathogen **6.** Assess the relationship between disease and infectious agents and their pathogenesis **7.** Clarify basic principles of medical immunology, the structure of the human immune system and its relationship to combating communicable diseases, as well as its relationship to autoimmune , inflammatory diseases and allergies. **8.** Identify bacteria , viruses and fungi that cause human diseases , diagnosing them and how to prevent them **9.** Identify the cultural characteristics of microorganisms and pathogenic factors of microorganisms of medical importance **10.** Explain the most important methods of sterilization and control of infectious disease **11.** Describe how antimicrobials work against different types of bacteria fungi and viruses; and ways of resistance development against these antimicrobials **12.** Recite and describe techniques used in immunological, molecular and bacterial diagnostics
Intellectual Skills	**1.** Use different laboratory diagnostic tests bacteria, viruses and fungi. **2.** Choose an appropriate method for examining and evaluating clinical samples suspected to be infected with microbes. **3.** Relate the pathogenic agent of the disease and proper antimicrobial agent
Professional Skills	Carry out the practical skills necessary for diagnosing bacterial, viral and fungal diseases regarding microscopy, culture techniques, serological and molecular tests.
General and Transferable Skills	Evaluate the causal relationship of bacteria, fugi, viruses and diseases.
Attitude outcomes	1. Examine ethical problems in relation to the topics and act accordingly 2. Formulate Ideas about transmission of bacteria, viruses and fungi and React against endemic, epidemic and pandemic parasitic infections 3. Verify results of laboratory tests regarding microbial infections 4. Cooperate with medical personals in field of medical microbiology and contribute actively in diagnosing, treating and preventing parasitic infections

Course structure			
Top**ic**	No. Of lectures (1 hour/ lecture	No. Of labs (2 hours /session)	**Lecturer**
1st semester			
Bacteriology			
Introduction to Microbiology	**6**		Dr.Firas Al-Tae Dr. Ahmed Hayawi
		5	Dr. Omar Nizzar Dr. Neam Basheer
Genus Staphylococcus (Gram^{+} cocci)	**3**		Dr. Ansam Hamdoon
		1	Dr.Neam Basheer
Genus Streptococcus (Gram $^{+}$ cocci)	**3**		Dr. Asmaa Zaki
		1	Dr.Zeena Maki
Genus Neisseria, Moraxella (Gram $^{-}$ cocci)	**3**		Dr. Ansam Hamdoon
		1	Dr. Neam Basheer
Genus Corynebacterium (gram $^{+}$ non spore forming bacilli)	**2**		Dr. Ansam Hamdoon
		1	Dr. Zeena Maki
Genus Bacillus (gram $^{+}$ spore forming bacilli)	**1**		Dr. Ansam Hamdoon
		1	Dr. Ansam Hamdoon
Anaerobic bacteria (Clostridia and related spp.)	**3**		Dr.Khalid Waleed
		1	Dr.Khalid Waleed
Genus Mycobacterium	**3**		Dr. Ahmed Hayawi
		1	Dr.Ahmed Hayawi
Antimicrobials & antimicrobial resistance	**5**		Dr. Asmaa Zaki
		1	Dr. Asmaa Zaki
Immunology			Dr.Firas Al-Tae Dr.Ahmed Abdullah
Introduction to immunology – innate immunity	**1**		Dr.Firas Al-Tae
Adaptive immunity – cellular immunity -	**2**		Dr.Firas Al-Tae
Adaptive immunity- Humeral Immunity	**1**		Dr.Firas Al-Tae
Complement system	**1**		Dr.Firas Al-Tae
Immunization	**1**		Dr.Firas Al-Tae
Hypersensitivity reactions	**2**		Dr.Ahmed Abdullah
Immune deficiencies	**2**		Dr. Khalid Waleed
Tolerance, autoimmunity and autoimmune diseases	**2**		Dr.Khalid Waleed

Blood Transfusion	**1**		Dr.Ahmed Abdullah
Transplantation immunology	**1**		Dr.Khalid Waleed
Virology			
Introduction to virology	**1**		Dr.Ahmed Hayawi
Structure of viruses	**1**		Dr.Ahmed Hayawi
Viral replication	**1**		Dr.Ahmed Hayawi
Diagnosis of Viral infections	**1**		Dr.Ahmed Hayawi
2nd semester			
Bacteriology			
Enterobacteriaceae			
Introduction	**2**	**1**	Dr.Ansam Hamdoon
Lactose fermenter – E.coli and Klebseilla	**2**		Dr.Ansam Hamdoon
Non-lactose fermenter- Shigella and Salmonella		**1**	Dr.Zeena Maki Dr.Ansam Hamdoon
	2		Dr.Ansam Hamdoon
		1	Dr.Ansam Hamdoon
Pseudomonaceae	**1**		Dr.Khalid Waleed
		1	Dr.Khalid Waleed
Vibreo, Helicobacter and campylobacter	**3**		Dr. Asmaa Zaki
		1	Dr.Asma Zaki
Coco-bacilli- Haemophillus	**1**		Dr.Khalid Waleed
Coco-bacilli- Bordetella	**1**		Dr.Khalid Waleed
Coco-bacilli Brucella	**1**		Dr.Khalid Waleed
		1	Dr.Ahmed Hayawi
Atypical Bacteria-	**4**		Dr.Firas Al-Tae
Immunology			
Tumer immunology	**1**		Dr.Khalid Waleed
		1	Dr.Firas Al-Tae
Systemic inflammation and tissue damage	**2**		Dr.Ahmed Abdullah
		1	Dr.Ahmed Abdullah
Cytokine	**1**		Dr.Ahmed Abdullah
		2	Dr.Ahmed Abdullah
Virology			
Anti-viral drugs	**1**		Dr. Ahmed Hayawi
		1 (PCR)	Dr.Firas Al-Tae
Parvovirus and papilloma virus	**1**		Dr. Ahmed Hayawi
			Dr.Ahmed Hayawi
Adenoviruses	**1**		Dr. Ahmed Hayawi
Herpes virus	**2**		Dr. Ahmed Hayawi
Pox virus and mollescum	**1**		Dr. Ahmed Hayawi
Picorna viruses	**2**		Dr. Ahmed Hayawi
Rhabdovirus	**1**		Dr. Ahmed Hayawi
Corona virus	**1**		Dr. Ahmed Hayawi

Orthomyxoviruses	**1**		Dr. Ahmed Hayawi
Paramyxovirus	**1**		Dr. Ahmed Hayawi
Haemorhagic fever virus	**1**		Dr. Ahmed Hayawi
Arbo virus	**1**		Dr. Ahmed Hayawi
		1 (revision)	Dr.Ahmed Hayawi
Mycology			
Introduction to mycology	**1**		Dr.Asmaa Zaki
		1	Dr.Asma Zaki
Antifungal drugs and superficial mycosis	**1**		Dr. Asmaa Zaki
		1	Dr.Neam Basheer
Cutaneous mycosis	**1**		Dr. Asmaa Zaki
		1	Dr.Neam Basheer
Subcutaneous mycosis	**1**		Dr. Asmaa Zaki
Systemic mycosis	**2**		Dr.Ansam Hamdoon
Opportunistic mycosis	**2**		Dr.Asmaa Zaki

Teaching and learning methods	
1. Theoretical lectures	3 lecture are given / week in lecture hall 1 hour / lecture
2. Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students and take the lesson in Microbiology laboratory of College of Medicine 2 hours/ session
3. Seminars and presentations	Each group of students (5-7 students) will choose a topic in Microbiology at the beginning of the academic year. Each group is supervised by one academic staff. The group is then presented the seminar in front of all academic staff of the Department and other students at a predetermined schedule time

Assessment methods	
1. Formative assessments	1. Individual questions 2. Discussion panel 3. Comparing the results obtained by the student from examining and evaluating medical forms and samples 4. Assignments

	5. Log book delivered by the end of each semester
2. Summative assessments	**<u>Theory and quizzes</u>** : essay question and multiple choice question **<u>Practical examination</u>**: examination method include examination of microscopic slides and culture media, biochemical activity, immunological tests and genetic testing. 1.Theory examination a. Mid-year examination : 25 marks b. Final year examination 45 marks 2. Practical examination a. Mid-year examination : 10 marks b. Final year examination : 15 marks 3. Quizzes 1st semester : 2.5 marks 2nd semesters: 2.5 marks Total marks : 100%
3. Pass mark	**50%**

Resources and requirements	
Essential text books	**1**. Medical Microbiology by Jawetz, Melnick, & Adelberg's, Last edition **2.** Connie R Mahon Doland C Lehman Text book diagnostic microbiology ,last edition 3.Roitts Essential Immunology, Last edition
Recommended text books	1. Review of Medical Microbiology and Immunology by Warren E. Levinson, Last edition 2. Immunology by Muphy, Kenneth and Casey, last edition
Other resources	Internet websites, workshops, seminars

Parasitology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul/ College of Medicine	
Department offering the course	Microbiology Department	
Name of Academic Program	MBChB	
Academic Year/level	Third	
Title of the course	Parasitology	
Code	MCMi 303	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 60 hours	Total= 120 hours
	Theoretical hours= 60 hours	
Date of specification approval	1/10/2022	

General Aims of Course
The main aims of this course are to:

1. Introduce the medical college students to the basic principles of medical parasitology and to the basic structure of the composition of medical parasite
2. Give the medical school students knowledge, skills and attitudes in medical Parasitology integrated with clinical applications.
3. Identify the host and parasite relationship

Intended learning outcomes of the course: By the end of the course, students will be able to:	
Knowledge and understanding	1. Illustrate morphology, biology , life cycle and transmission of medically important parasites . 2. Review the host parasite relationship and its effect on pathogenesis and clinical picture of parasitic infections 3. Recite various laboratory tests for identifying and diagnosing types of parasite. 4. Recognize the basic principles of treatment of parasitic infections using anti-parasitic medications. 5. Describe how can a certain parasitic infection is presented
Intellectual Skills	1. Interpret results of microscopic examination of parasite containing samples. 2. Formulate a systematic approach for laboratory diagnosis of common parasitic infections and select the most appropriate tool for their identification. 3. Relate the pathogenic parasite of the disease and proper management. 4.Analyse the parasitic infection pathogenesis and its host parasite relationship. 5. Design a plan to prevent parasitic infection
Professional Skills	To carry out the practical skills necessary for diagnosing parasitic diseases, starting with the light microscope and how to use it, direct examination, and laboratory staining methods, and reaching the most complex laboratory methods such as molecular tests.
General and Transferable Skills	Evaluate the causal relationship of parasite and diseases.
Attitude outcomes	• Examine ethical problems in relation to the topics and act accordingly • Formulate Ideas about transmission of parasitic infections and React against endemic, epidemic and pandemic parasitic infections • Verify results of laboratory tests regarding parasitic infections • Cooperate with medical personals in field of medical parasitology and contribute actively in diagnosing, treating and preventing parasitic infections

Course structure			
Topic	No. Of lectures (1 hour/ lecture)	No. Of labs (2 hours/ lab)	Lecturer
Parasitology			
1st semester			
Introduction to Parasitology	1		Dr. Saed Hamid
		1	Dr. Ikram Al-hasso
Intestinal protozoa pathogenic and non-pathogenic	3	?	Dr. Saed Hamid
		1	Dr. Omar Nazar
Ciliated protozoa *(Balantidium coli)*	1	?	Dr. Saed Hamid
		1	Dr. Omar Nazar
Intestinal flagellates (Giardia)	2		Dr. Ahmed Abdulla
		1	Dr. Omar Nazar
Cryptosporidium, Isospora and Microsporidia	2		Dr. Ahmed Abdulla
Trichomonas vaginalis and Trichomonas tenax	1		Dr. Ahmed Abdulla
		1	Dr. Omar Nazar
Haemo- flagellates (Leshmania)	2		Dr. Ahmed Abdulla
		1	Dr. Zena Makki
Tissue- flagellates(Trypanosoma)	1		Dr. Ahmed Abdulla
		1	Dr. Neam Basheer
Malaria	6		Dr. Ikram Al-hasso
		2	Dr. Neam Basheer Dr. Omar Nazar
Toxoplasma gondii	1		Dr. Saed Hamid
		1	Dr. Saed Hamid
Primary amebic meningoencephalitis (PAM)	2		Dr. Ahmed Abdulla
Trematodes(flukes)	5		Dr. Asma Zaki

Nematodes: *Ascaris Lumbricoides and Enrobius vermicularis*	2		Dr. Saed Hamid
		2	Dr. Saed Hamid Dr. Ikram Al-hasso
2nd semester			
Strongyloides stercoralis *Trichuris trichura* *Wuchereria bancrofti* Ocular worm infections Hook worm *Dracunculus medinensis*	10		Dr. Saed Hamid
		3	Dr. Ikram Al-hasso Dr. Neam Basheer
Tapeworm (Cestodes)	5		Dr. Ikram Al-hasso
		3	Dr. Saed Hamid Dr. Omar Nazar
		2	Dr. Neam Basheer Dr. Omar Nazar
Immune response of parasitic infections	2		Dr. Ahmed Abdulla
Scabies and mites Lice Miyasis Anopheles and Sand flys, fleas and Ticks Clinical presentations of parasitic infections	11		Dr. Ahmed Abdulla
		4	Dr. Neam Basheer Dr. Omar Nazar Dr. Saed Hamid
Anti-parasitic medications	1		Dr. Ikram Al-hasso
		1	Dr. Omar Nazar
Diagnostic Methods in Parasitology	2		Dr. Ikram Al-hasso
		1	Dr. Ahmed Abdulla

Teaching and learning methods	
Theoretical lectures	2 lecture are given / week in lecture hall 1 hour/ lecture
Practical labs or clinical sessions	Demonstration is given at the start of each lab session then the students are divided into small groups each of 10-15 students under supervision of a faculty member and take the lesson in Microbiology labs at the College of Medicine 2 hours/ each lab session
Seminars and presentations	Each group of students (5-7 students) will choose a topic in Microbiology at the beginning of the academic year. Each group is supervised by one academic staff. The group presents the seminar in front of a peer review panel of department faculty members in the presence of other students at a predetermined schedule time.

Assessment methods	
Formative assessments	1. Individual questions 2. Discussion panel 3. Comparing the results obtained by the student from examining and evaluating medical forms and samples 4. Assignments 5. Log book delivered to the department periodically for checking.

Summative assessments	• Practical exams: The examination is a sort of different stations, at which different forms of parasitology related microscopical slides, pictures, plans, comparisons are used examination. • Theoretical exams " essay and multiple choice question " performed as: - Quizzes - Mid year exam - final exam Theory examination a) Mid year examination : 25 marks b) Final year examination 45 marks Practical examination a) Mid year examination : 10 marks b) Final year examination : 15 marks Quizzes a) 1st semester : 2.5 marks b) 2nd semesters: 2.5 marks Total marks : 100%
6. Pass mark	50%

Resources and requirements	
Essential text books	1. London , Panama, JAYPEE.(Assigned book for third class medical parasitology). 2. BURTON J. Bogitsh,Clint E. Carter, and Thomas N. Oeltmann, 2013, Human parasitology 4th edition, USA and UK, Elsevier.
Recommended text books	• Zeibig A. Elizabeth, 2013, Clinical parasitology, USA, Elsevier • Rohela Mahmud · Yvonne Ai Lian Lim Amirah Amir 2017 • Medical Parasitology: A Textbook. Springer International Publishing AG 2017 • https://doi.org/10.1007/978-3-319-68795-7
Other resources	• World health organisation. • CDC.gov

Pathology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Pathology	
Name of Academic Program	MBChB	
Academic Year/level	Annual /1st and second terms	
Tilte of the course	Pathology	
Code	MCPa304	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 120	Total=240
	Theoretical hours= 120	
Date of specification approval	11/11/2022	

General Aims of Course

Develop the student's knowledge, skill, and attitude related to pathogenesis, morphological (microscopic and macroscopic pictures) and clinical manifestations of basic pathological processes and specific diseases at the molecular, cellular, tissue, organs, and whole body level.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	1. Identify altered structure and function of the body and its major systems that are seen in various diseases as regard etiology, pathogenesis, pathological features, prognosis, fate & complications. 2: Comprehend the general pathological features of inflammation (definition, etiology, types, pathogenesis of each type, gross morphology, microscopic features, systemic manifestations, fate & complications), tissue repair (definition, types, examples for each & factors affecting tissue repair), cell injury (etiology, pathogenesis, types, examples for each, macroscopic & microscopic features and effects) and cell death (types and examples, etiology, pathogenesis & pathological features). 3 Explain different forms of circulatory disturbances as atherosclerosis, embolism,gangrene, edema, congestion, thrombosis……etc. 4. Identify different aspects of infections as toxaemia, bacteraemia, septicaemia and pyaemia 5 Explain aetiology, pathogenesis, clinical presentation, pathological forms, macroscopic & microscopic features, fate and complications of(tuberculosis. Syphilis and pathological features of various viral, mycotic and parasitic diseases) 6. interpret the changes in genes and chromosomes that cause some diseases, especially tumors and genetic diseases 7. Recognize patterns, pathogenesis and morphology of growth disturbances 8.Summarize the steps of carcinogenesis and identify the origin and morphological features of different types of neoplasms. 9. Distinguish the aetiology, pathogenesis, clinical features, diagnosis of common and life threatening illness affecting the body and each of its major organ systems, presenting throughout the age spectrum including inflammatory, neoplastic and degenerative lesions of different body systems including:- - Cardiovascular system - Respiratory system

	- Hematopoeitic system - Lymph nodes and spleen - Gastrointestinal system - Hepatobiliary system - Exocrine pancreas and peritoneum - Urinary system - Male genital system - Female genital system - Breast - Endocrine glands - Musculoskeletal system - Central nervous system
Intellectual Skills	1. **Relate** the morphological changes of common and important diseases at macroscopic and microscopic level to clinical conditions such as: - Growth disturbances (e.g. hypertrophy, atrophy, hyperplasia - Inflammatory lesions (e.g. acute appendicitis, chronic) - cholecystitis) - Tissue repair (e.g. skin scar) - Degenerative diseases (e.g. cloudy swelling, fatty liver, hyalinosis, amyloidosis) - Circulatory disturbances (e.g. thrombus, pulmonary embolism) - Infectious diseases (e.g. tuberculosis) - Neoplasms whether benign (e.g. nevus, papilloma) or malignant (e.g. carcinoma, - sarcoma) - Cardiovascular diseases (e.g. ventricular hypertrophy) - Respiratory diseases (e.g. emphysema, , oat cell carcinoma) - Gastrointestinal diseases (e.g crohn's disease, ulcerative colitis) - Hematological disease (Anemia , Bleeding disorders and leukemia) - Hepatobiliary diseases (e.g gall stones, cirrhosis, hepatocellular carcinoma) - Urinary system (e.g polycystic kidney, bladder carcinoma) - Male genital system (e.g benign prostatic hyperplasia, testicular tumors) - female genital system (e.g patterns of endometrium, ovarian tumors) - breast (e.g benign & malignant breast tumors) - endocrine diseases (e.g goiter) - musculoskeletal diseases (e.g tumors of bone and cartilage)

	- diseases of lymph nodes (e.g reactive hyperplasia, lymphoma) - CNS diseases (e.g meningioma, cerebellar astrocytoma). 2- **Associate** clinical manifestation with pathological mechanisms occurring at the molecular, tissue, organ, and whole body level such as: o Suppuration o Fibrosis & collagen deposition during tissue repair o Pathogenesis of thrombosis, embolisms & gangrene o Pathogenesis of primary and secondary tuberculosis o Steps of carcinogenesis. 3- **Predict** complications and **organize** prognostic factors of various diseases such as: - Inflammatory lesions e.g abscess - Tissue repair e.g tissue fibrosis - Circulatory disturbances e.g thrombosis, embolism - Infectious diseases e.g TB - Neoplasms in different organs
Professional Skills	1.Illustrate microscopic data of different pathological lesions. 2- Differentiate between different diagnoses to arrive at a preferred or definite diagnosis.
General and Transferable Skills	1- Communicate ideas and arguments effectively. 2- Work effectively within a team.
Attitude outcomes	Appraise the importance of clinicopathological assessment to reach optimal diagnosis and prombt treatment

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction to pathology	2	2	Dr. Zahraa Marawan/dr.Ali Nazar
Cell injury, cellular adaptation and cell death	4	4	Dr.Ali Nazar/dr. Inam Ganim/dr. Elaf Hamdi
Acute &chronic inflammation	10	5	Dr.Nadwa Alazzo/dr. Khalid wissam/dr.Mustafa Salah/dr.Mays Hadid
Tissue renewal & repair, regeneration, healing & fibrosis	6	3	Dr.Nadwa Alazzo/Dr. Morroj Salih/ dr. Inam Ganim
Hemodynamic disorders, thromboembolism diseases & shock	8	4	Dr.Eklas Ahmed /Dr.Inam Ganim/Dr.Elaf Hamdi/Dr.Morooj Saleh

Genetic disorders	5	5	Dr.Zahraa Marwan/ dr. Inam Ganim/Dr.Mays Hadid
Diseases of immunity	8	4	Dr.Khalid Wissam/ Dr.Elaf Hamdi/Dr.Morooj Salih
Neoplasia	23	9	Dr.Wahda Alneumy/ Dr.Khalid Wissam/ Dr.Elaf Hamdi/Dr.Morooj Salih/Dr.Ali Nazar/Dr.Inam Ganim /Dr.Mays Hadid
Infectious diseases	8	4	Dr. Mustafa Salah/ Dr.Elaf Hamdi/Dr.Morooj Salih
Environmental &Nutrtional pathology	6	3	Dr.Morooj Salih/Dr.Inam Ganim /Dr. Elaf Hamdi
Diseases of infancy & childhood	6	3	Dr. Elaf Hamdi/ Dr.Morooj Salih/Dr.Inam Ganim
Cardiovascular system	20	10	Dr.Eklas Ahmed /Dr.Mays Hadid/Dr.Ali Nazar/Dr.Kalid Wissam /Dr.Mutafa Salah/Dr.Elaf Hamdi
Hematopoietic and Lymphoid Systems	20	10	Dr.Muna Kashmoola/Dr.Samar Salah/Mohamed Hassan/Dr.Inam Ganim
Respiratory system	18	9	Dr.Nadwa Alazzo/Dr.Khalid Wissam/Dr.Ali Nazar /Dr.Elaf Hamdi
Gastrointestinal tract	20	10	Dr.Zahraa Marwan/Dr.Morooj Salih/Dr.Mays Hadid/dr.Inam Ganim
Liver, biliary tract & pancreas	14	7	Dr.Ali Nazar/Dr.Elaf Hamdi/Dr.Morooj Salih /Dr.Mays Hadid
Urinary system	16	8	Dr.Mustafa Salah/ Dr.Ali Nazar /Dr.Elaf Hamdi/ Dr.Morooj Salih
Female genital tract	8	4	Dr.Wahda Alneumy/ Dr.Khalid Wissam/

			Dr.Elaf Hamdi/Dr.Morooj Salih/Dr.Inam Ganim
The breast	6	3	Dr.Eklas Ahmed /Dr.Mays Hadid /Dr.Kalid Wissam Dr.Elaf Hamdi
Endocrine system	8	4	Dr.Mays Hadid /Dr.Kalid Wissam Dr.Elaf Hamdi
Skin	6	3	Dr.Elaf Hamdi/Dr.Inam Ganim
Bones & joints	8	4	Dr. Morooj Salih/Dr.Inam Ganim
Central nervous system	4	2	Dr. Ali Nazar / Dr.Inam Ganim

Teaching and learning methods	
1. Theoretical lectures	** Lectures take place 4 times per week for each group & a total period 8 hours weekly for 2 groups. The lecture hall is the theater hall inside University student center
2. Practical labs or clinical sessions	Group teaching take place once weekly of a period 2 hours for each 60 student group teaching. The group teaching is take place in the large pathology Lab. (2 hours for Power point slides of gross specimens and microscopic slides in different pathological conditions,Th e students of each session are divided into small groups (10-15 students each). For each group, one demonstrator or assistant lecturer is available. The slide session are taken in student labs in

	pathology department.
3. Seminars and presentations	Seminar and Discussion group teaching once weekly of a period 2 hours. It take place in the large pathology Lab. Discussion and Seminars prepared by third year medical students on selected pathology topics by power point) Tutorial and problem based learning in the form of cases and MCQ is defined for each session and are discussed with one of staff. Self learning: through giving them certain topics to search, collect data and present it in front of senior staff

Assessment methods	
1. Formative assessments	1 Homework.(MCQ and cases senarios were given almost after each topics of lectures and conducted to the students through the google classroom) 2. Self learning: through giving them certain topics to search, collect data and present it in front of senior staff
2. Summative assessments	1. Quizes (first semester) 2.5% 2. Quizes (second semester) 2.5% 3. Mid year Theory Exam 25% 4. Mid year Practical Exam 10%

	5. Final Theory Exam 45% 6. Final Practical Exam 15 %
3. Pass mark	50%

Resources and requirements	
Essential text books	- 1. Robbins basic pathology 10th ed
Recommended text books	- 1. Text book of pathology By Muir's
Other resources	(Web Sites) 1-Wepath(https://webpath.med.utah.edu) 2.Pathologyoutlines(https://www.pathologyoutlines.com

Community Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	College of Medicine/ University of Mosul	
Department offering the course	Family & Community Medicine	
Name of Academic Program	M,B,Ch,B	
Academic Year/level	2022-2023 / Third year	
Title of the course	Community Medicine	
Code	MCCo305	
Links	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours = 30	Total = 60
	Theoretical hours = 30	
Date of specification approval	13/11/2022	

General Aims of Course

This course aims to provide students with adequate information and training in health nutrition and medical statistics so that they will be able to properly understand these sciences and their applications when practicing medicine and conducting health and medical researches.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	1. Define nutrition and diet therapy in relation to age. 2. Recognize the important food constituents and its recommended daily allowance. 3. Describe eating related disorders and diseases. 4. Define statistical terms. 5. Identify the types of statistical measures. 6. Determine the general roles in using each statistical test. 7. Differentiate between the types of statistical tests. 8. Indicate the burden of diseases.
Intellectual Skills	1. Calculate energy requirements and nutrient needs. 2. Select the plans of diet for each health problem. 3. Illustrate diagnostic criteria for eating disorders. 4. Differentiate between the types of statistical tests. 5. Distinguish between the measures of morbidity and mortality.
Professional Skills	1. Construct a healthy dietary regimen in relation to age. 2. Apply nutritional plans for management of nutritional disorders. 3. Practice the use of statistical tests in different conditions. 4. Plot the shapes of data presentation.
General and Transferable Skills	1. Communicate ideas and arguments effectively. 2. Work effectively within a team. 3. Appraise the skills of statistics in researches. 4. Disseminate knowledge to the community to increase the level of awareness toward healthy diet. 5. Select the ideal statistical test for each medical research.

Course structure

Topic	No. of lectures	No. of labs	Lecturer
Nutrition	15		-Assist. Prof. Waleed Ghanim -Lecturer Nuha Hachim
Medical Statistics	15	30	-Lecturer Muna Muneer -Assist. Lect. Firas Mahmoud -Assist. Lect. Farah Haitham -Assist. Lect. Layla Hadi

Teaching and learning methods	
Theoretical lectures	- Lectures - Small group discussion
Practical labs or clinical sessions	- The students are divided into small groups each of 10-15 students, - Group teaching takes place once weekly for two hours.
Seminars and presentations	Each student should participate with members of his group and present seminars.

Assessment methods	
Formative assessments	1. Quizzes 2. Homework 3. Problem solving
Summative assessments	1. Essay Questions 2. MCQs 3. Problem solving questions
Pass mark	50%

Resources and requirements	
Essential text books	1. Park textbook of Preventive and Social Medicine. 2. Lecture notes on Medical statistics. 3. Practical book of Medical Statistics.
Recommended text books	1. Oxford handbook of nutrition and dietetics. 2. Oxford handbook of Medical statistics.
Other resources	

Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	3th year	
Tilte of the course	Internal Medicine	
Code	MCMd306	
Total Course Hours	Practical hours=60	Total=120
	Theoretical hours=60	
Date of specification approval	12/11/2022	

General Aims of Course

The course aims to provide students of the third stage with basic knowlege of the common presentation of intenal diseases and basic clinical skills.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Know the common symptoms of internal diseases. 2. Know the common parasitic diseases in our community. 3. Know the common abnormalities of electrolytes and acid-base balance 4. Basic information in immunological and nutritional diseases
Intellectual Skills	1. Take proper history 2. Perform basic physical examination
Professional Skills	1. Make a good doctor-patient relationship 2. Interview patients
General and Transferable Skills	1. Take proper history 2. Perform basic physical examination. 3. Build a good doctor-patient relationship. 4. Interview patients
Attitude outcomes	Recognize ethical problems and how to deal with them.

Course structure			
Topic	No. Of lectures	No. Of clinical sessions	Lecturer
Manifestation of internal medicine diseases.	20	20	Dr Khlid Al keroo Dr. Jassem Mohamed Dr Arwa Al sarraf Dr.. Fakhir yousif Dr. Omer AbdAlmnam Dr. AbdAllah Zuhair
Electrolyte and acid based imbalances.	7	10	Dr. Wael thanoon
Immunology	6	10	Dr. Ali Abdulrahman
Nutritional medicine	8	10	Dr. Arwa Al Sarraf
Infectious diseases	19	10	Dr. Nassar Galib Dr. Salam Fareed

Teaching and learning methods	
1. Theoretical lectures	Teaching halls
2. Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
3. Seminars and presentations	Presentation in hospitals

Assessment methods	
1. Formative assessments	• Clinical • Quiz
2. Summative assessments	• Clinical 20 • Theoretical 80
3. Pass mark	• 50%

Resources and requirements	
Essential text books	• Davidsons Principle and practice of Medicine • Macleod's clinical examination
Other resources	Up to date and Medscape website

التدريسي	الرابط
ا.د. خالد نافع	https://drive.google.com/drive/folders/1-t10t2bOq_L0Ci-nc8wjqAhMWocOqh04?usp=share_link
أ.م.د.جاسم محمد	https://drive.google.com/drive/folders/1-yXf18s5lCPCGvjorpq9Ea370HIDbrLT?usp=share_link
ا.م. د.اروى الصراف	https://drive.google.com/drive/folders/12RTMXcxph2BsRyw0nZFGHKaBuVhvHC9_?usp=share_link
د. وائل ذنون	https://drive.google.com/drive/folders/101FT384f0qruKi7Wtj0FUSVLqrlrW9rn?usp=share_link
د.نصار	https://drive.google.com/drive/folders/102iZCoTjIjd9GEdJj3paom0mTICTW914?usp=share_link
أ.م.د.محمد حارث	https://drive.google.com/drive/folders/109z4pNT6lwvwhf8FQCKI3Vb0mHiJ9gUq?usp=share_link
ا.د. فاخر يوسف	https://drive.google.com/drive/folders/10CfLU_iR9vfsox-sRMzRgjJva4PG1PRP?usp=share_link
د.عمر	https://drive.google.com/drive/folders/10IJTfnMVhaDZNSNWhiSlrwbosBaqET_H?usp=share_link
د.عبدالله زهير	https://drive.google.com/drive/folders/106dW_x3mqKi9C4TOD4fLK-AZKHGS_Ty8?usp=share_link
د. سلام	https://drive.google.com/drive/folders/1-z0NFeBdjruJCpYasHpyENgAGLrgWnb0?usp=share_link
أ.م.د.رامي عادل	https://drive.google.com/drive/folders/105py1cwwYmVI-gp-krXWZdk3u-pI0VaK?usp=share_link

Theoretical lectures

Knowledge and understanding:	1. Identify the basic knowledge of Surgery. 2. Identify the basic knowledge of departments of Surgery. 3. Identify the basic Skills of the clinical examination.
Intellectual Skills	1. Realize the best method of taking the Medical history. 2. Realize the best method of the clinical examination.
Professional Skills	1.Nil
General and Transferable Skills	1.Recognize the basic knowledge of Surgery and it's departments and how will corporate with clinical skills
Attitude outcomes	1.Recognize any ethical problems in relation to the topics and act accordingly. 2.Recognize the importance of respect of the patient's dignity and privacy.

Lecturer	No. of lectures	
Mohanad Adnan Bakr	4	
Samir Ibrahim Al -Safaar	1	
Muddather Abdulaziz Mohammed	4	
Mohammed Inaam	4	
Dina Abdulghani	4	
Sahar Habeeb	2	
Zaid Shanshal	4	
Zaid Tarq	2	
Mohammed Atallah	1	
Ali Hasan	1	
Omer Saad	1	
Obai Abdulaziz	2	

Teaching and learning methods	
Theoretical lectures	

1. Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
2. Seminars and presentations	The students are divided into small groups to do seminars

Assessment methods	
8. Formative assessments	
9. Summative assessments	Final examination (100 mark)/ MCQ system
10. Pass mark	50%

Resources and requirements	
Essential text books	1.Baily and Love's Textbook / Short Practice of Surgery
Recommended text books	1.Brows Textbook of Clinical examination
Other resources	Nil

FOURTH YEAR

Forensic medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Pathology	
Name of Academic Program	M.B.Ch.B.	
Academic Year/level	Fourth / First and second terms	
Tilte of the course	Forensic medicine	
Code	MCPa401	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours = 60 (forensic medicine only)	Total=120
	Theoretical hours = 60 (45 forensic medicine and 15 toxicology)	
Date of specification approval	11/11/2022	

General Aims of Course

Developing the student's knowledge, skills, and behavior with regard to identifying the forms of clinical signs of various types of wounds and how to write a forensic medical report for them, as well as diagnosing death cases and its association with violence or crime. In addition to knowing the forensic medical importance of most natural and unnatural accidents such as electrocution, suffocation, and sexual abuse. Besides the aforementioned points, there is an

additional toxicological dimension where the effects of various chemicals and toxic materials is explained and illustrated from both clinical and medicolegal aspects.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Identify the sections of forensic medicine and the forensic medical systems prevalent in the world, as well as the forensic medical system in Iraq. 2. Determining the methods of identification by hair, fibers, bones, shreds, and the whole body. 3 . Diagnosing death, identifying the presumptive and confirming signs of death, and the necessary tests to confirm it, with post mortem changes. 4.Identify the types of wounds and their specifications, as well as firearm wounds and their features. 5. Identify the damage to the head and other areas of the body. 6.Organizing the forensic medical report. 7. Learn to estimate ages. 8. Classify thermal and electrical injuries and identify discuss medico-legal aspects of these injuries. 9. Knowing the causes of sudden death. 10. Identify the different types of sexual offences & indicate medicolegal importance of virginity. 11. Classify different types of asphyxia and identify the medicolegal aspects of different types of violent asphyxia. 12. Define different types of child abuse and discuss the medicolegal aspects of physical child abuse. 13. Knowing the different methods of dissection. 14. Indicate the medicolegal importance of disputed paternity and blood grouping. 15. Learn about road, train and plane accidents. 16. Acknowledge the basic concepts of toxicology 17. Learn the effect and addictive potential of opiates and marijuana 18. Identify other stimulant drugs and their effects 19. Classify chemicals according to their toxic potential 20. Organize different treatment methods of poisoning 21. Knowing the dangers of addictive drugs and toxic chemicals on the society

Intellectual Skills	By the end of the course the student will be able to: • Determine causes of death of different injuries and toxins. • Determine postmortem interval in different criminal incidents. • Analyze case scenario of forensic medicine cases. • Appraise cases of malpractice and ethical aspects of the medical practice. • Integrate results of history, physical and laboratory investigations into a meaningful diagnostic formulation. • Construct an appropriate management plan of acute or chronic intoxicated patient. • Assess mental status for intoxicated patients. • Construct an overall understanding of poisoning • Integrate toxicological disciplines with medicolegal issues • Analyze the possible outcomes of poisoning
Professional Skills	C1 Examine collection of bones to identify its sex, age and race. C2 Estimate age by X ray examination. C3 Identify characters of different types of wounds. C4 Demonstrate characters different types of head injuries. C5 Recognize different parts of firearm weapons. C6 Demonstrate different types of firearm injuries. C7 Predict the causative instruments, survival period and causes of death of different types of injuries. C8 Demonstrate different toxic capsules, seeds and roots and explain their medicolegal aspects. C9 Predict the intrauterine fetal ages. C10 Assess uteri of illegal abortion and interpret the cause of death and survival periods after abortion. C11 Construct a proper primary wound report. C12 Elicit findings of medico-legal importance through demonstration of forensic case photograph. C13 Demonstrate a thin layer chromatography plate and calculate rate of flow for the unknown substance.
General and Transferable Skills	1- Communicate ideas and arguments effectively. 2- Work effectively within a team.
Attitude outcomes	Honor and respect seniors and other colleagues involved in his teaching and subsequently in his future practice.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction to forensic medicine	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Identification	2	2	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Death	3	2	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Injuries	5	4	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Head and body damages	3	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Forensic medical reports	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Estimation of age	2	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Thermal injuries	3	2	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Electrical injuries	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Sudden death	2	2	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Sexual offences	2	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Suffocation	5	4	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Forensic pediatrics and child abuse	3		Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri

Dissection methods	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Addiction	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Blood and body fluid changes	3	3	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
The context of forensic work in Iraq	1		Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Paternity testing	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Road, train and plane accidents	3	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Surgical mortality and general anesthesia	1		Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Reaching the perpetrator through evidence of modern forensic evidence	1	1	Dr. Karam Turath Tawfeeq/ M.rs. Likaa Khalil, M.rs. Wafaa Sabri
Introduction to Toxicology	1		Omar M. Shindala
Management of a Poisoned Patient	1		Omar M. Shindala
Toxicology of Opiates	1		Omar M. Shindala
Toxicology of Marijuana	1		Omar M. Shindala
Other drugs of abuse Cocaine, Amphetamine, LSD, Khat, and Benzodiazepines	1		Omar M. Shindala
Toxicology of heavy metals: Arsenic, Lead, and Mercury	1		Omar M. Shindala
Toxicology of Cyanide	1		Omar M. Shindala
Toxicology of Carbon Monoxide	1		Omar M. Shindala

Toxicology of Aspirin	1		Dr. Ibrahim Faisal
Toxicology of Paracetamol/ Acetaminophen	1		Dr. Shamil Othman
Organophosphate Poisoning	1		Dr. Shamil Othman
Toxicology of Tricyclic-Antidepressants (TCA)	1		Dr. Shamil Othman
Toxicology of Alcohols, Ethanol/ Methanol/Carbon Tetrachloride	1		Dr. Shatha Hani
Toxicology of Kerosene and other Hydrocarbons	1		Dr. Shatha Hani
Toxicology of Caustic agents/ Bleach and other irritant chemicals	1		Dr. Nada Alrawi

Teaching and learning methods	
Theoretical lectures	** Lectures take place 2 times per week for each group & a total period 4 hours weekly for 2 groups. The lecture halls is Al-Pharabi & Al-Ghazali hall.
Practical labs or clinical sessions	Group teaching take place once weekly of a period 2 hours for each 100 student group teaching. The group teaching is take place in the same theoretical halls (2 hours for Power point slides) of pictures slides in different forensic conditions.

Assessment methods	
Formative assessments	Ask questions at the end of each lecture in the form of pictures and allow students to think and answer them.
Summative assessments	• Mid year Theory Exam 30% • Mid year Practical Exam 10% • Final Theory Exam 50% • Final Practical Exam 10 %
Pass mark	50%

Resources and requirements	
Essential text books	الوجيز في الطب العدلي: وصفي محمد علي
Recommended text books	
Other resources	1. Joseph Prahlow: Atlas of forensic pathology &Forensic Pathology 2. KNIGHT'S FORENSIC PATHOLOGY : Bernard knight 3. COLOR ATLAS OF FORENSIC MEDICINE AND PATHOLOGY 4. Casarett & Doull's Toxicology: The Basic Science of Poisons..

Psychology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	4th year	
Title of the course	Psychology	
Code	MCMd401	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
	Theoretical hours=15	
Date of specification approval	12/11/2022	

General Aims of Course
The course aims to teach psychology to students of the fourth stage in the Faculty of Medicine in the theoretical aspects, where the student is familiar with the science of psychology and its classifications.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Understand the subject of psychology 2. Knows the types of psychological problems
Intellectual Skills	1. Recognize psychological problems and its benefit in the field of clinical work
Professional Skills	
General and Transferable Skills	Participate in continuous medical education programs.
Attitude outcomes	Recognize ethical problem and know how to deal with them.

Course structure			
Topic	No. Of lectures	No. Of clinical sessions	Lecturer
Introduction to Psychology	1	1	د صفية أ ديب
Neuroscience and Behavior	1	2	د صفية أ ديب
Sensation and Perception	1	3	د صفية أ ديب
States of Consciousness	1	4	د صفية أ ديب
Learning	1	5	د صفية أ ديب
Memory	2	6,7	د صفية أ ديب
Cognition and Language	1	8	د صفية أ ديب
Intelligence	1	9	د صفية أ ديب
Motivation and Emotion	1	10	د صفية أ ديب
Sexuality and Gender	1	11	د صفية أ ديب
Development	1	12	د صفية أ ديب
Personality	1	13	د صفية أ ديب
Health Psychology: Stress, Coping, and Well-Being	1	14	د صفية أ ديب
Social Psychology	1	15	د صفية أ ديب

Teaching and learning methods	
1. Theoretical lectures	Teaching halls
2. Practical labs or clinical sessions	
3. Seminars and presentations	

Assessment methods	
1. Formative assessments	1. Quiz
2. Summative assessments	1. Theoretical 100%
3. Pass mark	50%

Resources and requirements	
Essential text books	1. Understanding Psychology 2. ATKINSON & HILGARD'S INTRODUCTION TO PSYCHOLOGY
Recommended text books	1.
Other resources	Up to date in psychology

Community medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he/she has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Family and Community Medicine	
Name of Academic Program	MBChB	
Academic Year/level	2022-2023 / Fourth year	
Tilte of the course	Community Medicine	
Code	MCCo403	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=**120**	Total=**225**
	Theoretical hours=**105**	
Date of specification approval	12/11/2022	

General Aim of Course

This course aims to provide students with adequate knowledge, skills, and attitude related to community and preventive Medicine and public health science that include; communicable diseases, non communicable diseases , screening, evaluation, monitoring of health problems in the community, in addition to effective doctor- patient communication skills.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1.Define the community medicine, health, prevention, communicable disease and non-communicable disease, and topic related to social sciences , occupational medicine 2: Define epidemiology 3 describe primary applications of epidemiology in public health practice. 4:list the main communicable diseases 5:recognize the con communicable diseases 6 identify the main role of primary health care and its levels 7 discuss woman and child health problems 8 understand the medical administration 9 identify school health services and its preventive aspects. 10: explain the environmental health 11: describe the medical entomology 12: Define social health in public medicine. 13: study occupational health and related diseases
Intellectual Skills	1.qualify primary health measures 2.diagram the aspects that community medicine deal with 3. classify the methods of prevention and control 4. Predict the methods of community assessment. 5.solve problems related to health of the community 6.estimate risk for health problems 7. navigate each disease with its causation and methods of prevention and control
Professional Skills	1. apply the epidemiological knowledge to community problems 2. solve a problem related to a scenario regarding screening for disease. 3. design research study related to one of community problems 4. practice the role of doctors in communication with the patients 5. criticize the prevention and evaluation program
General and Transferable Skills	1- Communicate ideas and arguments effectively. 2- Work effectively within a team.
Attitude outcomes	1-Appraise the skills of communication and community medicine in dealing with the health of the community. 2-Disseminate knowledge to the community to increase level of awareness to health practice and health problems among population 3-Honor and respect seniors and other colleagues involved in his teaching and subsequently in his future practice.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Communicable diseases	35 lectures	3labs	أ.م. د. همام غانم زبير أ.م.د. نجلاء إبراهيم م. د. نهى حاجم
Epidemiology	14lectures	3 labs	أ.م.د. بسام عبد المبدئ أ.م. د. همام غانم إبراهيم
Non communicable disease	8 lectures	2 labs	م.د. نهى حاجم
- Medical Sociology	10 lectures	1lab	أ.م. د. نادية حازم
Maternal and child health	9 lectures	1 lab	أ.م.د. أميمة عبد الرزاق إبراهيم
Primary health care	4	1 lab	أ.م.د. أميمة عبد الرزاق إبراهيم
Environmental health	8	1 lab	أ.م.د. وليد غانم
Occupational health	5	1 lab	م.م. صلاح العشو
Medical administration	5	1 lab	أ.م.د. وليد غانم
Medical entomology	2		أ.م.د. وليد غانم
School and dental health	2		أ.م.د. وليد غانم
Priorities in health problems	3		أ.م.د. وليد غانم

Teaching and learning methods	
1. Theoretical lectures	Lectures Small group discussion
2. Practical labs or clinical sessions	The students are divided into small groups each of 10 – 15 students. Group teaching take place twice per week for 2 hours, once for epidemiological exercises and the second for communication skills and research. -Practice both group at the clinical setting at primary health centers to demonstrate the theoretical knowledge at the practical site
3. Seminars and presentations	Each students in groups should present their project of research in seminars Each students should participate with member of his/her team in presentation of the research that has performed first or second half of the year

Assessment methods	
1. Formative assessments	• Quizzies • Homework. • Team based learning assessment • Problem solving
2. Summative assessments	• Written assessment (essay, MCQs and problem solving questions) • OSCE assessment • Discussion and seminars
3. Pass mark	50%

Resources and requirements	
Essential text books	1. Park's Textbook of preventive and social medicine edited by K. Park 2. Control of Communicable diseases Manual Edited by David L. Heymann, MD
Recommended text books	1 Gordis L, *Gordis Epidemiology*. 6th Edition, 2018. 2. Practical notes for students on epidemiological practices 3. Practical notes on communication skills (handbook)
Other resources	

Obstetrics

Course Description

This course includes the scientific, practical and cognitive construction of obstetrics for students of the fourth stage in the college of Medicine and what it includes of introducing students to the basic skills that allow them to study and analyze study cases In order to provide health care and raise the efficiency of students scientifically and practically by providing students with the academic medical information necessary for the care of pregnant women and the foundations of the birth process and the diagnosis of pathological conditions and complications that may accompany pregnancy and childbirth. With an emphasis on developing the student's ability to develop clinical skills and explain ethical principles in dealing with pathological conditions and communication skills with the patient.

Educational Institution/ college	CMUM	
Department offering the course	Obstetric and gynecology	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	2022-2023/ fourth level	
Title of the course	Obstetrics	
Code	MCOg404	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=90 hours	Total=150 hours
	Theoretical hours=60 hours	
Date of specification approval	1/9/2022	

General Aims of Course
Building knowledge, ability and skill to accommodate the scientific foundations in the subjects of obstetric and understand the terms of the scientific and practical material.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. identify the physiological and anatomical changes that occur in the female reproductive system and the rest of the body systems during pregnancy and childbirth. 2.explain the steps of primary health care of pregnant woman 3.describe the foundations of childbirth 4. define and illustrate the basics of diseases and complications that affect women during pregnancy, childbirth and puerperium.
Intellectual Skills	1.obtain the history of the pathological condition correctly from the patient and link it to the clinical data of the clinical examination and the results of laboratory or imaging tests to reach the correct diagnosis of the pathological condition and its treatment 2. Utilization of the results of laboratory or imaging tests used in diagnosis
Professional Skills	1. conduct the primary health care to pregnant women. 2. distinguish the childbirth and plan for its management 3. diagnose and treat complications and diseases that affect women during pregnancy, childbirth and puerperium, especially common and emergency, in addition to conducting the necessary clinical examination 4. communicate effectively with the patients .
General and Transferable Skills	1. develop his or her ability to deal with the patient after graduation. 2. research scientific sources related to the subjects of obstetrics and scientifically approved websites to update his or her scientific knowledge.

Course structure			
Topic	No. Of lectures		Lecturer
Female reproductive anatomy and physiology.	2		Dr. zahraa Noah Dr. Aseel Basim
Conception	13		Dr. zahraa Noah ,Dr.Asmaa AL sanjry Dr.Ruaa A.Hamed
Normal labor	4		Dr.Hiba A. Suhaeel
Puerperium and its disorder.	2		Dr.Hiba A. Suhaeel
Fetal malposition and malpresentation	3		Dr.Saja Al-Jawady
Bleeding in late pregnancy	3		Dr.Widad M. Abass
Medical and surgical disorder in pregnancy.	11		Dr.Aseel B. Younus Dr.Widad M. Abass
Obstetric complication	7		Dr.Amina Zakareia
Abnormal labor.	3		Dr.Amina Zakareia
Post-partum haemorrhage and obstetric injuries	3		Dr. zahraa Noah
Coagulation disorder in pregnancy.	1		Dr. zahraa Noah
Common obstetric operative procedures:	2		Dr. zahraa Noah
Prenatal infection and diagnosis	2		Dr.Ruaa A.Hamed
Miscellaneous subjects in obstetrics.	4		Dr.Saja Al-Jawady Dr.Baraa Lukman DrHadeel Anwer

Teaching and learning methods	
Theoretical lectures	60 lectures
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	None

Assessment methods	
Formative assessments	1.mini clinical exam(Mini cx) 2.case based discussion (CBD) 3. direct observational procedures(DOP)
Summative assessments	1.Essay 2.MCQ 3.OSCE
Pass mark	50%

Resources and requirements	
Essential text books	1. obstetric by ten teachers
Recommended text books	1.Deuharts textbook 2.essential textbook
Other resources	1.Lectures given by lecturers in the 4th year 2.workshops, journals, websites

Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	4th year	
Tilte of the course	Internal Medicine	
Code	MCMd405	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=70	Total=205
	Theoretical hours=135	
Date of specification approval	12/11/2022	

General Aims of Course

The course aims to provide the students with the necessary knowledge regarding the common internal diseases and to gain basic clinical skills required for their diagnosis.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Understand common internal diseases. 2. Know the clinical and laboratory methods of diagnosing diseases. 3. Outline the treatment of common diseases
Intellectual Skills	1. Interpret physical signs 2. Analyze clinical data
Professional Skills	1. Take history properly 2. Perform perfect physical examination
General and Transferable Skills	1. Diagnose common internal diseases 2. Perform life support measures
Attitude outcomes	1. Recognize ethical problems and the way to deal with them

Course structure			
Topic	No. Of lectures	No. Of clinical sessions	Lecturer
Cardiology	29	20	Dr. Jassem Mohamed Dr Thia Abd AlKadeer Dr. Arwa Mohmmod DR. Mohamed Abd hadi
Respiratory medicine	28	10	Dr. Rami Adel Dr. Alya Al Zobair
Endocrinology	21	10	Dr. Wael Thanoon Dr Mohamed Gazi
Gastroenterology and Hepatology	29	10	Dr. Abdullah Zuhair Dr. Mohamed Jassem
Nephrology	14	10	Dr. Mohamed Gazi Dr. Nassar Galib Dr. Salam Fareed
Infectious diseases	14	10	Dr Mohamed Harith Dr. Ahmed Mohamed

Teaching and learning methods	
Theoretical lectures	Teaching halls
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	Presentation in hospitals

Assessment methods	
Formative assessments	• Clinical • Quiz
Summative assessments	• Clinical 20 • Theoretical 80
Pass mark	50%

Resources and requirements	
Essential text books	• Davidsons Principle and practice of Medicine • Macleod's clinical examination
Recommended text books	• Hutchison's clinical examination • Harrison's
Other resources	Up to date and Medscape website

التدريسي	الرابط
أ.م.د.جاسم محمد	https://drive.google.com/drive/folders/12SVHQaWwaU3yQiD_g-BlbipGA7297UgB?usp=share_link
أ.م.د.اروى محمود	https://drive.google.com/drive/folders/12RTMXcxph2BsRyw0nZFGHKaBuVhvHC9_?usp=share_link
أ.م.د.رامي عادل	https://drive.google.com/drive/folders/12YhtdwBgypdSAOxF9v09SkfWLOwfVPcV?usp=share_link
د. وائل ذنون	https://drive.google.com/drive/folders/12sm_5koJpe1U9R4PS2I_yEI-0tSM1Kbl?usp=share_link
د. محمد غازي	https://drive.google.com/drive/folders/12sm7xUk8GJ2BP4rh1muFcei78knBCcuv?usp=share_link
د.محمد جاسم	https://drive.google.com/drive/folders/12jLUiDUbnE-3SQMV-yX3RKk0N9iYPF_8?usp=share_link
ا.م.د.علياء عبدالعزيز	https://drive.google.com/drive/folders/12swM3L8Z7ZPQ1sEyHEwlJT8wqRWJRjXO?usp=share_link
د.عبدالله زهير	https://drive.google.com/drive/folders/115oR0cezlqQhPRSYxJvXGWtSwhOERtkf?usp=share_link
أ.م.د.ضياء الحمداني	https://drive.google.com/drive/folders/12X7eZhYfCJQSiA-QMxbY_sgLvKrueALO?usp=share_link

Surgery

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul / Mosul College of Medicine	
Department offering the course	Surgery	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	4th Medical Class	
Title of the course	Scientific course	
Code	MCSu406	
Links	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= nil	Total= 30 hours
	Theoretical hours= 30 hours	
Date of specification approval	1 / 10 / 2021	

General Aims of Course

The course describes the basic knowledge of Surgery and it's departments to the medical students in order to build the clinical knowledge and clinical skills in the next years in diagnosis and treatment of the different surgical diseases including the emergent conditions, so optimize the medical services to the society.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Identify the advanced knowledge of Surgery. 2. Identify the advanced knowledge of departments of Surgery. 3. Identify the advanced Skills of the clinical examination.
Intellectual Skills	1. Realize the best method of taking the Medical history. 2. Realize the best method of the clinical examination.
Professional Skills	Clinical examination of abdomen
General and Transferable Skills	1.Recognize the basic knowledge of Surgery and it's departments and how will corporate with clinical skills
Attitude outcomes	1.Recognize any ethical problems in relation to the topics and act accordingly. 2.Recognize the importance of respect of the patient's dignity and privacy.

Lecturer	No. of lecture / year	Hours of Clinical Session / Course
Samir Ibrahim Al – Safaar	6	3
Nashwan Mahgobb	4	3
Karm Kamal	10	3
Firas Mahmmod	10	3
Khalf Rashid	10	3
Abdulsalam Thanon	4	2
Zaid Shanshal	8	5
Oidy Hanii	4	2
Mohammed Atallah	8	5
Ali Hasan	8	5
Omer Saad	8	5
Zaid Saadaldeen	4	2
Numan Hadii	4	2
Ashraf Ibrahim	4	2
Mohanad Adndn Bakr		5
Sahar Habeeb		2
Muthana Abdulrazaq		2
Zaid Tarq		2
Mohammed Ayad		2
Basam Khalid		2

Teaching and learning methods	
Theoretical lectures	
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	The students are divided into small groups to do seminars

Assessment methods	
Formative assessments	• 20 % Clinical examination • 20% Written examination(Essay & MCQ systems)
Summative assessments	• 60% Written examination (Essay & MCQ systems)
Pass mark	50%

Resources and requirements	
Essential text books	Baily and Love's Textbook / Short Practice of Surgery
Recommended text books	Brows Textbook of Clinical examination
Other resources	Nil

Pediatrics

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

General Aims of Course
This course introduces students to the science of pediatrics and focuses on normal child development and growth.

Educational Institution/ college	CMUM	
Department offering the course	PEDIATRICS	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	FOURTH YEAR	
Title of the course	PEDIATRICS	
Code	MCPe407	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 0	Total=15
	Theoretical hours= 15	
Date of specification approval	1/9/2022	

Topic	No. Of lectures	Lecturer
Normal child growth and development, and behavioural disorders	4	Dr. Farah Samir Yahya
Genetics and inborn error of metabolism	4	Dr. Noor Buraq
Child nutrition, rickets and failure to thrive	4	Dr. Nawar Yahya
Basic and advanced life support Allergy and anaphylaxis	2	Dr. Noor Sameer
Pediatric history and examination	1	Dr. Noor Sameer

Teaching and learning methods	
Theoretical lectures	

Assessment methods	
Formative assessments	1. Google classroom quiz upon each system completion
Summative assessments	1. Theoretical Mid-year exam (40%) 2. Theoretical end-of-year exam (60%)
Pass mark	50%

Resources and requirements	
Essential text books	Nelson essentials of pediatrics (eighth edition) 2018
Recommended text books	1. Illustrated textbook of Paediatrics (sixth edition) 2022 2. Nelson textbook of pediatrics (21th edition)
Other resources	NICE guidelines, ROME IV Criteria, Ispad guidelines 2022

FIFTH YEAR

Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	5th year	
Tilte of the course	Internal Medicine	
Code	MCMd501	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30 Theoretical hours=75	Total=105
Date of specification approval	12/11/2022	

General Aims of Course
The course aims to train students of the fifth stage how to diagnose and treat internal Medicine diseases clinically in the fields of (Hematology, Rheumatology and Neurology).

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Aware of internal diseases. 2. Know about diseases of blood, nervous system and musculoskeletal system. 3. Know the clinical and lab methods of diagnosing diseases that involve these systems.
Intellectual Skills	1. Analyze physical signs. 2. Interpret clinical data.
Professional Skills	1. Take history correctly 2. Do through neurological exam 3. Examine specific joints appropriately 4. Approach patients with blood disorders
General and Transferable Skills	1. Identify common neurological, hematological and rheumatologic disease. 2. Select the appropriate investigations to deal with these diseases.
Attitude outcomes	Recognize ethical problem and know how to deal with them.

Course structure			
Topic	No. Of lectures	No. Of clinical sessions	Lecturer
Haematology	17	8	Dr Khlid Al keroo Dr. Alya Al Zobair Dr. Ahmed Mohamed
Neurology	27	12	Dr. Yahya Qaseem Dr Omer Abd Al moneam
Rheumatology	13	6	Dr. Faher Yousif Dr. Ali Abd Rahman Dr Zahraa Amer Dr. Sara Hamed
Medical Rehabilitation	5	2	Dr Zahraa Amer
Clinical pharmacology	14	0	Dr. Rami Adel Dr Khlid Al keroo Dr. Alya Al Zobair

Teaching and learning methods	
Theoretical lectures	Teaching halls
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	Presentation in hospitals

Assessment methods	
Formative assessments	1. Clinical 2. Quiz
Summative assessments	1.Clinical 20 2. Theoretical 80
Pass mark	50%

Resources and requirements	
Essential text books	1. 1. Davidsons Principle and practice of Medicine 2. Macleod's clinical examination
Recommended text books	1.Hoffbrand essential of Clinical haematology.
Other resources	Up to date and Medscape website

الرابط	التدريسي
https://drive.google.com/drive/folders/110rfkvjnbxr5es5_eBCyRb5C764XBKwa?usp=share_link	ا.د. خالد نافع
https://drive.google.com/drive/folders/10X2Gbg8iY6CdPhFY9Wr15EZ8arMvtgPi?usp=share_link	ا.د. فاخر يوسف
https://drive.google.com/drive/folders/11q0xUSyL015wazZPJg3jA8_Ibc66nFhA?usp=share_link	د.يحيى
https://drive.google.com/drive/folders/11DtT-y5J3v25_FMgZKg0FxmYl5D9B-zm?usp=share_link	د.عمر
https://drive.google.com/drive/folders/11qvr6NMXDEjJAQd-fgEhKIqymeZO3b_1?usp=share_link	أ.م.د.علي عبدالرحمن
https://drive.google.com/drive/folders/10ixpYREsJQl18JimJxpzEJkSa8ZfbZ_i?usp=share_link	د.زهراء عامر
https://drive.google.com/drive/folders/124vEXhZ6qlcddB8QA2B5fEe0dzp3JCAW?usp=share_link	د. احمد محمد

Psychology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/level	5th year	
Tilte of the course	Psychiatry	
Code	MCMd501	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30 Theoretical hours=45	Total=75
Date of specification approval	12/11/2022	

General Aims of Course

The course aims to teach psychiatry to students of the fifth stage in the Faculty of Medicine in both the theoretical and practical aspects, where the student is familiar with the science of psychiatry and its classifications.
The course also aims at educating students about the complications of treatments and prognosis of the disease and enables them to diagnose and treat common and emergency cases in hospitals and outpatient clinics in proper manner.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Understand the subject of psychiatry 2. Know the types of mental illness 3. Know the clinical methods of diagnosing mental illness 4. Know the drugs that are used in the treatment of mental illnesses and their complications 5. Understand the mechanisms of mental illness and ways to prevent the development of the disease and its complications
Intellectual Skills	1. Solve the mental problems in the field of clinical work 2. Conduct clinical and laboratory examinations related to mental illness 3. Use simple psychological devices in treating common diseases
Professional Skills	1. Arrange scientific approach to patients with psychiatric illnesses. 2. Manage psychiatric emergencies.
General and Transferable Skills	1. Participate in continuous medical education program
Attitude outcomes	Recognize ethical problem and know how to deal with them.

Course structure			
Topic	No. Of lectures	No. Of clinical sessions	Lecturer
Introduction, classification and etiology	2	1,2	**د صفية أ ديب**
Neurodevelopmental Disorders	2	3,4	**د صفية أ ديب**
Schizophrenia Spectrum and Other Psychotic Disorders	2	5,6	**د صفية أ ديب**
Bipolar and Related Disorders	2	7,8	**د صفية أ ديب**
Depressive Disorders	3	9,10,11	**د صفية أ ديب**
Anxiety Disorders	3	12,13,14	**د صفية أ ديب**
Obsessive-Compulsive and Related Disorders	3	15,16,17	**د صفية أ ديب**
Trauma- and Stressor-Related Disorders	2	18,19	**د صفية أ ديب**
Dissociative Disorders	1	20	**د صفية أ ديب**
Somatic Symptom and Related Disorders	1	21	**د صفية أ ديب**
Feeding and Eating Disorders	1	22	**د صفية أ ديب**
Elimination Disorders	1	23	**د صفية أ ديب**

Sleep-Wake Disorders	1	24	د صفية أ ديب
Sexual Dysfunctions	1	25	د صفية أ ديب
Gender Dysphoria	1	26	د صفية أ ديب
Disruptive, Impulse-Control, and Conduct Disorders	1	27	د صفية أ ديب
Substance-Related and Addictive Disorders	3	28,29,30	د صفية أ ديب
Neurocognitive Disorders	2	31,32	د صفية أ ديب
Personality Disorders	1	33	د صفية أ ديب
Paraphilic Disorders	1	34	د صفية أ ديب
Child psychiatry	1	35	د صفية أ ديب
Forensic psychiatry	1	36	د صفية أ ديب
Old age psychiatry	1	37	د صفية أ ديب
Suicide and deliberate self-harm	1	38	د صفية أ ديب
Women psychiatry	1	39	د صفية أ ديب
Global psychiatry	1	40	د صفية أ ديب
Psychological treatment	2	41,42	د صفية أ ديب
Drugs and other physical treatment	3	43,44,45	د صفية أ ديب

Teaching and learning methods	
Theoretical lectures	Teaching halls
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	Presentation in hospitals

Assessment methods	
Formative assessments	1. Clinical 2. Quiz
Summative assessments	1.Clinical 20 2. Theoretical 80
Pass mark	50%

Resources and requirements	
Essential text books	1. Shorter Oxford Textbook of Psychiatry seventh edition
Other resources	Up to date and Medscape website

التدريسي	الرابط
د. صفية	https://drive.google.com/drive/folders/12PGTXoSKZl_ndnEjGS7CaW0gmADnOOY9?usp=share_link

Dermatology
Course Description

This course description provides a brief summary of the most important characteristics of the course and lists the learning outcomes expected of the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of Medicine	
Name of Academic Program	MBChB	
Academic Year/Level	5th year	
Title of the course	Dermatology and venereology	
Code	MCMd503	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=30 Theoretical hours=30	Total=60
Date of specification approval	1/11/2022	

General Aims of Course

The course aims to teach dermatology and venereology to students of the fifth stage in the Faculty of Medicine in both its theoretical and practical aspects.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Understand the subject of dermatology and venereology. 2. Know the types of skin and venereal diseases. 3. Know the clinical and laboratory methods of diagnosing dermatology. 4. Know the topical and systemic treatments that are used in the treatment of skin diseases and their complications. 5. Understand the pathogenesis of skin diseases and ways to prevent the development of the disease and its complications.
Intellectual Skills	1. Know how to reach a clinical diagnosis 2. Know how to differentiate between similar skin diseases. 3. Know how to use the best treatment according to the patient's condition 4. Predict the prognosis of the disease
Professional Skills	1. Discriminate dermatological emergencies. 2. Conduct clinical and laboratory examinations related to skin diseases. 3. Use simple skin devices in treating common diseases.
General and Transferable Skills	- Prepare a doctor who can diagnose common skin diseases and treat them safely. - Graduate a doctor who can safely use simple dermatological tools.
Attitude outcomes	Recognize any ethical problems and medicolegal concerning of dermatological and sexually transmitted diseases, and the student should respect the privacy of the patient.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Introduction	2	2	Qasim S. Al-Chalabi
Skin infection	6	6	Ahmed Manhal
inflammatory skin diseases	9	9	Anfal L. Al Harbawi
Hair and nail diseases	2	2	Roaa Maher
S.T.Ds	2	2	Qasim S. Al-Chalabi
Genetic and malignant skin conditions	3	3	Hala N. Al Salman
Pruritus	3	3	Hala N Al Saman

Teaching and learning methods	
Theoretical lectures	
Clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	

Assessment methods	
Formative assessments	- Discussion and oral tests.
Summative assessments	- Written exams - Conducting the clinical exam using the OSCE method.
Pass mark	50%

Resources and requirements	
Essential textbooks	1. Clinical Dermatology 4th Edition by Richard Weller (Author), John A. A. Hunter (Author), John Savin (Author),
Recommended textbooks	Fitzpatrick's Color Atlas And Synopsis Of Clinical Dermatology, 8th Ed 8th Edition by Klaus Wolff (Author), Richard Allen Johnson (Author), Arturo Saavedra (Author),
Other resources	Web and internet as source of information.

الرابط	التدريسي
https://drive.google.com/drive/folders/12GU-WDCwBO5WTxOXCdnzWJgyo2PxmFwe?usp=share_link	د.هالة نذير
https://drive.google.com/drive/folders/129tKBvSUmbmxDG2PX7AcRME5TkrWkaVt?usp=share_link	أ.م.د.قاسم سالم
https://drive.google.com/drive/folders/12E__-eqIyQiZ9olK_djtgqHQjLsm4pwN?usp=share_link	د.انفال ليث
https://drive.google.com/drive/folders/12OKR2-IoFffADTR6w0Rs4ZLuxQ_4beR9?usp=share_link	د.رؤى ماهر
https://drive.google.com/drive/folders/12MjBW3FlGykcv67Wm_421dMd5JTaaApK?usp=share_link	د.احمد منهل

Surgery
Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	College of medicine /university of Mosul	
Department offering the course	Scientific department / department of surgery	
Name of Academic Program	MBChB	
Academic Year/level	Fifth stage/2022-2023	
Title of the course	Lectures, discussions and clinical training	
Code	MCSu504	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=60	Total=150
	Theoretical hours=90	
Date of specification approval	12/11/2022	

General Aims of Course

This course includes medicine and surgery and its branches. It includes introducing students to basic surgical skills that allow them to study and analyze clinical cases. In order to provide humane health care for patients and raise the efficiency of students scientifically and practically by providing students with the academic medical information necessary to diagnose common or emergency surgical cases with a focus on the students' ability to develop clinical skills and explain the ethical principles in dealing with the patients.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1-Recognize the basic theoretical and practical rules of surgery and its branches to reach a familiar formula for diagnosis and dealing with cases. 2-mention the appropriate method for taking the medical history of the clinical case, documenting it and presenting it well.
Intellectual Skills	1- Interpretation of the pathological symptoms of surgical cases. 2-Inference about complications of common surgical conditions or operations. 3-Describe the pathogenesis, clinical symptoms, complications, methods of diagnosis and the most successful treatment of surgical cases.
Professional Skills	1-Apply the basic rules in clinical examination and analysis of common surgical cases, taking into account the behaviors and peculiarities of patients.
General and Transferable Skills	Activate scientific information and reinforce it with clinical information.
Attitude outcomes	the student will be able to recognize any ethical problems in relation to the surgical cases and act accordingly, the student will acknowledge the importance of application of scientific information in dealing with practical surgical cases.

Course structure			
General surgery	90	60	Lecturer

Teaching and learning methods	
1. Theoretical lectures	
2. Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
3. Seminars and presentations	

Assessment methods	
1. Formative assessments	1. 20% clinical examination 2.20% mid – year examination (Essay & MCQ systems)
2. Summative assessments	1.60% Final examination9 Essay 7 MCQ systems)
3. Pass mark	50%

Resources and requirements	
Essential text books	1.Baily and Love's Textbook 2.Brows Clinical Examination
Recommended text books	
Other resources	

Ophthalmology
Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul /College of Medicine	
Department offering the course	Surgery / Ophthalmology	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	5th Medical Class	
Title of the course	Bachelor of Medicine and General Surgery	
Code	MCSu505	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30 hours	Total= 60 hours
	Theoretical hours= 30 hours	
Date of specification approval	1 / 10 / 2021	

General Aims of Course

This course includes ophthalmology and includes introducing students to the basic surgical skills that allow them to study and analyze clinical cases in order to provide human health care to patients and raise the efficiency of students scientifically.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1 - Identify the basic theoretical and basic rules of the ophthalmic material to reach a familiar formula for diagnosis and dealing with case 2 – Identify the way in taking the medical history of the clinical condition and documenting and presenting it in a good way
Intellectual Skills	1. Realize the best method of taking the Medical history. 2. Realize the best method of the clinical examination.
Professional Skills	1. Applying the basic rules in the clinical examination and analysis of common surgical conditions taking into account the behaviors and specificities of patients 2- Perform the clinical examination using the ophthalmoscope and measure the intraocular pressure
General and Transferable Skills	1.Recognize the basic knowledge of Ophthalmology and how will corporate with clinical skills
Attitude outcomes	1.Recognize any ethical problems in relation to the topics and act accordingly. 2.Recognize the importance of respect of the patient's dignity and privacy.

Lecturer	No. of lectures	
1.Assistant professor Dr. Azzam Abdul-Kader Ahmed	25	
2.Lecturer Dr. Zubaida Saad Ahmed	5	

Teaching and learning methods	
Theoretical lectures	
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	The students are divided into small groups to do seminars

Assessment methods	
Formative assessments	20% Clinical examination 20% Mid – year Written Examination(MCQ system)
Summative assessments	60% Final Examination(MCQ system)
Pass mark	50%

Resources and requirements	
Essential text books	1.Baily and Love's Textbook / Short Practice of Surgery
Recommended text books	1.Brows Textbook of Clinical examination
Other resources	Nil

Ear, Nose and Throat

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Surgery	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	2022/ 2023, 5th Medical Class	
Title of the course	Otolaryngology	
Code	MCSu506	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30 hours	Total= 60 hours
	Theoretical hours= 30 hours	
Date of specification approval	5 / 10 / 2022	

General Aims of Course

The course describes the basic knowledge of otolaryngology to the medical students in order to build the clinical knowledge and clinical skills in the next years in diagnosis and treatment of the different surgical diseases including the emergent conditions, so optimize the medical services to the society.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Identify the basic anatomy and physiology of ear ,nose and throat. 2. Recognize the general surgical features of related diseases. 3. Explain the surgical management and possible complications of diseases. 4. Describe the new techniques of diagnosis and treatment in otolaryngology.
Intellectual Skills	After completing this course, student should have the following skills: 1. Realize the best method of taking the Medical history. 2. Realize the appropriate method of the clinical examination. 3. Assess and interpret the results of audiological tests.
Professional Skills	After completing the course, student acquires the following skills: 1.Differentiate between different neck masses. 2. Elicit ear wash and nasal endoscopy.
General and Transferable Skills	After completing the course, student can do the following: 1. Work effectively in a team in a variety of health care settings. 2. Acquire problem-solving skills in groups for continuing professional development needs. 3. Demonstrate critical thinking and decision making abilities in a variety of theoretical and practical situations. 4.Recognize the basic knowledge of otolaryngology and it's departments and how will incorporate the clinical skills
Attitude outcomes	1. Recognize any ethical problems in relation to the topics and act accordingly. 2. Recognize the importance of respect of the patient's dignity and privacy.

Course structure		
Topic (lectures)	No. of lectures	Lecturer
Anatomy and physiology of the ear and facial nerve	1	Prof. Basil Mohammad Natheer
Hearing Tests and symptoms and signs of ear diseases	1	Prof. Basil Mohammad Natheer
Diseases of the external ear	1	Lecturer Sunmar Younus Hamed

Diseases of the middle ear: acute and chronic otitis media	2	Lecturer Sunmar Younus Hamed
Complications of otitis media	2	Lecturer Sunmar Younus Hamed
Deafness: sensorineural and conductive	1	Lecturer Baraa Mahir
Diseases of the vestibular system: Vertigo	1	Lecturer Baraa Mahir
Tinnitus, Acoustic neuroma	1	Lecturer Baraa Mahir
Audiological tests	2	Lecturer Baraa Mahir
Anatomy and physiology of the nose and paranasal sinuses	1	Prof Ali Abdulmuttalib
Traumatic conditions of the nose	1	Lecturer Mohammed Saad Azeez
Acute rhinosinusitis	1	Lecturer Mohammed Saad Azeez
Chronic rhinosinusitis	2	Lecturer Mohammed Saad Azeez
Allergic and non-allergic rhinitis	1	Lecturer Mohammed Saad Azeez
Anatomy and physiology of the larynx	2	Assisstant prof. Haitham Alnori
Acute and chronic laryngitis	2	Assisstant prof. Haitham Alnori
Carcinoma of the larynx and tracheostomy	2	Prof Ali Abdulmuttalib
Anatomy and physiology of the pharynx	1	Lecturer Ahmad Khalid
Conditions of the mouth	1	Lecturer Ahmad Khalid
Acute and chronic pharyngitis and parappharyngeal abscess	1	Lecturer Ahmad Khalid
Tonsillitis and adenoid	1	Prof Ali Abdulmuttalib
Tumors of the pharynx	2	Lecturer Ahmad Khalid
Topic (clinical session)	No. of sessions	Lecturer
Introduction to ENT	3	Prof Ali Abdulmuttalib
History taking in ENT	3	Assisstant prof. Haitham Alnori
Clinical Examination in ENT	3	Lecturer Ahmad Khalid

Neck examination	3	Lecturer Ahmad Khalid
Nasal endoscopy and flexible laryngoscopy	3	Lecturer Sunmar Younus Hamed
Ear wash and ear Suction	3	Lecturer Sunmar Younus Hamed
Epistaxis and ENT emergency	3	Lecturer Baraa Mahir
Stridor	3	Lecturer Baraa Mahir
Audiogram	3	Lecturer Mohammad Saad
ENT instruments	3	Lecturer Mohammad Saad

Teaching and learning methods	
Theoretical lectures	Lectures using Data show, The students are divided into groups each of 100-150 students.
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	The students are divided into small groups to do seminars.

Assessment methods	
Formative assessments	Draw a concept map in class to represent their understanding of a topic. Submit one or two sentences identifying the main point of a lecture. Turn in a research proposal for early feedback. Homework exercises as review for exams and class discussions.

	Reflections journals that are reviewed periodically during the semester
Summative assessments	1. Written exam of the midyear(20 marks) and the final exam (60 marks) consisting of multiple choice questions with reasoning as well as problem solving to assess the students' knowledge. The student will have to demonstrate the mastery of his knowledge and the understanding of the concepts. 2. Practical examination at the end of the course (20 marks) to assess practical and case studies and problem solving, consists of case scenario and OSCE.
Pass mark	50%

Resources and requirements	
Essential text books	1. Hall and Colman's diseases of the ear, nose and throat.
Recommended text books	1. Logan Tunner,s Diseases of the Nose Throat and Ear, Head and Neck Surgery.
Other resources	Websites: uptodate, Pubmed.

Pediatrics

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	PEDIATRICS	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	FIFTH YEAR	
Title of the course	PEDIATRICS	
Code	MCPe507	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 60	Total=120
	Theoretical hours= 60	
Date of specification approval	1/9/2022	

General Aims of Course

This course covers the science of pediatrics and provides students with an introduction to the fundamental pediatric skills they need to study and analyze clinical cases in order to provide patients with health and humanitarian care. It also increases students' efficiency both scientifically and practically by arming them with the academic medical knowledge required to diagnose common or urgent pediatric conditions, with an emphasis on strengthening their capacity to develop clinical judgment. It also describes ethical standards to follow while handling pediatric illnesses and how to communicate with the patient's family.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Implement the guidelines to ensure proper communication and interaction with the patient, and analyze the medical record to accurately comprehend the pathological situation. 2. Determine the best strategy for obtaining, recording, and presenting a clinical case history. 3. Identify" the most important clinical manifestations of pediatric diseases including emergency cases 4. Compare the results of clinical evaluation with the results of laboratory tests to reach a diagnosis of pathological conditions and in a correct academic way
Intellectual Skills	1. Conduct clinical examinations relevant to common emergencies 2. Troubleshooting of the pathogenic symptoms in pediatric cases from the perspectives of anatomy, pathology, function, and diagnostic significance 3. Compose a differential diagnosis of common childhood diseases and what is the proposed treatment for it
Professional Skills	1. Follow the fundamental principles while taking into account the "behaviors and privacy of the patient" during clinical examination and analysis of common pediatric diseases 2. formulate management plans for common and emergency cases in pediatrics 3. Identify complications of childhood diseases, and formulate a prevention and management plan
General and Transferable Skills	1. Energizing scientific knowledge and fusing it with clinical expertise

Course structure

Topic	No. Of lectures	No. Of clinical cessions	Lecturer
Haemato-oncology	4	6	Assistant professor Dr. Mazin Mahmoud Fawzi
Gastro-enterology	5	6	Assistant professor Dr. Aws Hazem Ahmed
Cardiology	4	6	Professor Dr. Rikan Suleiman Juma

Infectious diseases	5	6	Professor Dr. Riyad Abdullatif Al-Obeidi
Endocrinology	4	6	Assistant professor Dr. Nada Ali Ahmed
Respiratory	5	6	Assistant professor Dr. Rabie Yassin Al-Dabouni
Neurology	4	6	Assistant professor Dr Ghaith Waddah
Neonatology	11	6	Dr. Noor Samir YahyaDr. Omar yahya
Normal child growth and development, vaccination and behavioural disorders	4	6	Dr. Farah Samir Yahya
Poisoning	2	6	Dr. Ahmed Saad
Genetics and inborn error of metabolism	4	6	Dr. Noor Buraq
Nephrology	4	6	Dr. Gesar Salim
Child nutrition, rickets and failure to thrive	4	6	Dr. Nawar Yahya

Teaching and learning methods	
• Theoretical lectures	
• Clinical sessions in pediatric wards, neonatal care units "Teaching Hospital", and skills laboratory (using models or educational dolls and computers to display pictures of some cases of pediatrics, newborns and preterm infants or videos to learn the method of clinical examination)	The students are divided into small groups each of 10-15 students

• Discussion cessions	

Assessment methods	
Formative assessments	1. Google classroom quiz upon each system completion
Summative assessments	1. Theoretical Mid-year exam (25%) 2. Theoretical end-of-year exam (60%) 3. Comprehensive clinical examinations conducted by the department at the end of each training period (15%)
Pass mark	50%

Resources and requirements	
Essential text books	Nelson essentials of pediatrics (eighth edition) 2018
Recommended text books	1. Illustrated textbook of Paediatrics (sixth edition) 2022 2. Nelson textbook of pediatrics (21th edition)
Other resources	NICE guidelines, ROME IV Criteria, Ispad guidelines 2022

Gynecology

Course Description

This course includes the scientific, practical and cognitive construction of the women's subject for students of the fifth stage in the Faculty of Medicine and what it includes of introducing students to the basic skills that allow them to study and analyze study cases in order to provide health care and raise the efficiency of students scientifically and practically by providing students with the necessary academic medical information to diagnose gynecological diseases with a focus on developing the student's ability to develop clinical skills and explain ethical principles in dealing with pathological conditions and communication skills with the patient.

Educational Institution/ college	CMUM	
Department offering the course	Obstetric and gynecology	
Name of Academic Program	M.B.CH.B	
Academic Year/level	2022-2023/ fifth level	
Title of the course	gynecology	
Code	MCOg508	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours=60 hours	**Total=120 hours**
	Theoretical hours=60 hours	
Date of specification approval	1/9/2022	

General Aims of Course

Building knowledge, ability and skill to accommodate the scientific foundations in the subjects of obstetric and understand the terms of the scientific and practical material.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	1. summarize the physiology and anatomy of the female reproductive system. 2. explain the basics of diseases affecting the female reproductive system, including infections affecting the female reproductive system, menstrual disorders, disorders that occur after menopause, tumors that affect the female reproductive system of both benign and malignant types, in addition to gynecological diseases that affect girls in childhood and adulthood.
Intellectual Skills	1.obtain the history of the pathological condition correctly from the patient and link it to the clinical data of the clinical examination and the results of laboratory or imaging tests to reach the correct diagnosis of the pathological condition and its treatment 2. Utilization of the results of laboratory or imaging tests used in diagnosis
Professional Skills	1. diagnose and treat diseases affecting the female reproductive system (especially common and emergency ones). 2. perform a gynecological clinical examination including "taking swabs and a pap smear" and interpret the clinical finding during examination.
General and Transferable Skills	1. develop his or her ability to deal with the patient after graduation. 2. research scientific sources related to the subjects of obstetrics and scientifically approved websites to update his or her scientific knowledge.

Course structure

Topic	No. Of lectures		Lecturer
Normal and abnormal development of female genital tract	5		Dr. Baraa Lukman
Gynaecological aspect of neonatal, childhood and puberty period	3		Dr. Aseel B. Younus
Menstrual cycle and its abnormalities	6		Dr. Aseel B. Younus Dr. zahraa Noah
infections in gynecology	4		Dr.Hiba A. Suhaeel
Sub-fertility and related disorders	7		Dr.Ruaa A.Hamed Dr. Ahmed Jasim
Menopause and its disorders	2		Dr.Ahmed Jasim

Benign conditions affecting the vulva, cervix and uterus	4		Dr.Asmaa Al-Sanjery Dr.Raida Al- Wazan
Tumors of the genital tract	13		Dr.Raida Al- Wazan Dr. Baraa Lukman Dr.Hadeel Anwer
Urogynecology	4		Dr.Ruaa A.Hamed Dr.Asmaa Al-Sanjery
Family planning	4		Dr.Saja Al-Jawady
Common gynecological operation	3		Dr.Hadeel Anwer
Miscellaneous subjects in gynecology	5		Dr.Hadeel Anwer Dr. Ahmed Jasim

Teaching and learning methods	
Theoretical lectures	60 lectures
Practical labs or clinical sessions	The students are devided into small groups each of 10-15 students
Seminars and presentations	None

Assessment methods	
Formative assessments	• 1.mini clinical exam(Mini cx) • 2.case based discussion (CBD) • 3. direct observational procedures(DOP)
Summative assessments	• 1.Essay • 2.MCQ • 3.OSCE
Pass mark	50%

Resources and requirements	
Essential text books	• 1. gynecology by ten teachers
Recommended text books	• 1.Deuharts text book • 2.essential text book
Other resources	• 1.Lectures given by lecturers in the 5thyear • 2.workshops, journals, websites

Radiology

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	University of Mosul / college of medicine	
Department offering the course	Radiology	
Name of Academic Program	MBChB	
Academic Year/level	Fifth Grade	
Title of the course	Accreditation Program	
Code	Radiology/McRa509	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30	Total= 60
	Theoretical hours= 30	
Date of specification approval	20-9-2022	

General Aims of Course

This course includes diagnostic radiology teaching and learning of students in the skills of radiological diagnosis that allows them to study and analyze clinical cases in order to provide health and humanitarian care for patients and raise students' efficiency scientifically and practically by providing students with academic medical information necessary to diagnose common or emergency conditions with a focus on Development of the student's ability to develop radiological diagnostic skills and explain ethical principles in dealing with pathological conditions and communication skills with the patient

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding	1 - Managing various health needs of the community in the various medical fields . 2 - Effective communication with patients and their relatives, and the health staff as a whole in a way that preserves all social and behavioral values . 3 - Obtaining the latest advanced medical information using the latest medical technologies such as evidence-based medicine . 4- Completion medical specialization in various fields through postgraduate studies (diploma, master, doctorate, board) . 5 - Management of various health fields when necessary . 6- Work and live as community leaders by giving the patients a good role and example in the community . G-Solving societal health problems whenever they are found 7-Developing the standards and skills of the college's teaching staff by learning and continuing medical training through workshops and conferences . 8-Working on developing and building high-level medical research in various fields and publishing it. 9. In addition to supporting teaching staff by writing scientific books necessary for teaching process 10-Support and communication with all institutions of civil society in the governorate and the country
Intellectual Skills	1 - Reading radiographic films related to common and practical emergency situations . 2 - Determining 'the most important radiological manifestations of clinical diseases, including emergency conditions . 3 - Interpretation of the radiological manifestations of clinical cases in terms of anatomically, satisfactory, functionally and diagnostic importance . Activation of cognitive thinking skills to the students can be achieved properly by discussing the topic before presenting the lecture to the students .

Professional Skills	1 - The student will be able to work in hospitals and institutions after acquiring the technical skills that qualify him to do this program 2- Enable the student to be aware of safety issues from the dangers of human diseases. 3-Studying the means of analysis and measurement of models taken from the human body especially blood and other pathological models which help in diagnosing diseases or evaluating the health or treatment status in relation to the radiological findings & make a correlations. 4. Enable the student to communicate with his patient and understand his health problem. Objectively, he will be able to examine the patient clinically, correlate & merge the case optimally with the radiological findings for the best successive medical diagnosis. All the mention above can be achieved by Knowing the perfect 'Principles and Methods of Reading Radiological Films in the correct scientific way & Knowing the proper normal Radiologic anatomy
General and Transferable Skills	1-Using the computer and data show to show illustrative films. 2-Teaching the art and communication skills through practical . lessons conducted in front of students 3-Allow the students to conduct simple research in order to . qualify them to conduct broader research 4-Encouraging the students to participate in international and . international student conferences
Attitude outcomes	Continuous teaching & using various methods of learning & assessment activities allow students to develop deep content knowledge. Importantly, supports development of students skills in critical thinking, collaboration, creativity and Encourage them to be reflective thinkers and check for comprehension & interactive with the surroundings.

Course structure			
Topic	No. Of lectures	No. Of labs	Lecturer
Respiratory system	6	6	Dr.Wasan Ali Attia
Musculo Skeletal system	6	6	Dr. Dalya Abdulqader Noori Al -Falaki
Gastro intestinal Radiology	6	6	Dr. Hadeel Muhammad Farook Ahmed Al –Hialy Dr. Marwa Ismail Khalaf Al –Khafaji

Genito Urinary system	6	6	Ahmad Azhur Hashim
CT & MRI Radiology	6	6	Dalya Abdulqader Noori Al-Falaki Hadeel Muhammad Farook Ahmed Al – Hayaly
Gyne. & Obstetric Radiology Mammography	6	6	Muammar Abdel Ghafour Ibrahim Agha

Teaching and learning methods	
1. Theoretical lectures	
Practical labs or clinical sessions	The students are divided into small groups each of 6 students
Seminars and presentations	

Assessment methods	
Formative assessments	1.Clinical exams conducted by the department at the end of each training period 2.Evaluation of working hours: Attending lectures.: attendance and absence weekly for the clinical teaching course , seminars , doing full report in radio diagnosis for 3 cases , in addition to other scientific events all are recorded in Logbook book 3.Evaluation of the seminars provided by the students 4.Half of the year exam , Theoretical exams (that include multiple questions MCQ & short Essay) , Use of electronic correction device OMR 5.Final year exam , Theoretical exams (that include multiple questions MCQ & short Essay) , Use of electronic correction device OMR 6.Daily quizzes . 7.Evaluation of working hours: Attending lectures

Summative assessments	1. Paper-based test/assessment through mid-year and final year exams 2. Observation/evaluation during the lecture through participation . 3.Evaluate a lecture by the students at the end of the semester
Pass mark	50%

Resources and requirements	
Essential text books	1. The systematic book Armstrong for Medical Students
Recommended text books	1.David Sutton 2.Atlas of Radiologic Anatomy 3.Medical Imaging
Other resources	WWW/Radiopaedia.com WWW/radiology online .com

Family medicine
Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Family and Community Medicine	
Name of Academic Program	MBChB	
Academic Year/level	Fifth Year	
Tilte of the course	Family Medicine	
Code	Mcco510	
Link	http://uomosul.edu.iq/pages/ar/medicineMosul/90704	
Total Course Hours	Practical hours= 30 Theoretical hours= 15	Total= 45
Date of specification approval	11th Nov. 2022	

General Aims of Course
The course aims to provide students with adequate training in all fields of family medicine, so that the student is able to diagnose and adequately manage common health problems and take the necessary decision for diagnosis and treatment of all family members regardless of age, gender and type of disease.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Recall the basic principles of Family Medicine and its applications.
Intellectual Skills	1. Develop skills in accessing relevant medical information including history, clinical examination, and investigations in Primary Health Care and to apply it to the specific context. 2. Demonstrate critical thinking and create solutions for each health problem presented in Primary Health Care.
Professional Skills	1. Present the ability to conduct medical counseling and health education in Primary Health Care Setting. 2. Build on their skills as good communicators by demonstration cultural competence in working in Primary Health Care. 3. Develop diagnostic and therapeutic skills for prevention and treatment of common health problems.
General and Transferable Skills	1. Develop Knowledge and skills to apply population health approach in developing health services.
Attitude outcomes	

Course structure			
Topic	No. Of lectures	No. Of Clinical Sessions	Lecturer
Family Medicine Principles	4		Dr. Zaid M. Yassen Dr. Anmar B. Saeed Dr. Rukaea A. Salih
Preventive medicine and periodic medical examination	2		Dr. Zaid M. Yassen Dr. Anmar B. Saeed Dr. Rukaea A. Salih
Management approach of chronic and acute common clinical conditions	9		Dr. Zaid M. Yassen Dr. Anmar B. Saeed Dr. Rukaea A. Salih

Clinical training in PHC centers on family medicine programs		30	Dr. Zaid M. Yassen Dr. Anmar B. Saeed Dr. Rukaea A. Salih

Teaching and learning methods	
4. Theoretical lectures	
5. Practical labs or clinical sessions	The students are devided into small groups each of 10-15 students
6. Seminars and presentations	

Assessment methods	
Formative assessments	1. Quizzes 2. Logbook 3. Clinical Exams
Summative assessments	1.Written examination (MCQ, problem solving, short Essay, critical decision making) 2. Objective structured clinical examination 3. Oral Examination
Pass mark	50%

Resources and requirements	
Essential text books	1. Swanson's Family Medicine Review,9th Edition 2. Case files in family Medicine 4rt EditioN
Recommended text books	1. Bratton's Family Medicine Board Review, 5th Edition
Other resources	American Academy of family physicians AAFP.org

SIXTH YEAR

Internal Medicine

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Department of medicine	
Name of Academic Program	MBChB	
Academic Year/level	6th year	
Tilte of the course	Internal Medicine	
Code	MCMd601	
link	https://drive.google.com/drive/folders/10K0_qVMO_9YqjMsjCDbWGHadY5GkqEmD?usp=share_link	
Total Course Hours	Practical hours=310	Total=360
	Theoretical hours=50	
Date of specification approval	11/11/2022	

General Aims of Course

The course aims to train students of the sixth stage how to diagnose and treat internal Medicine diseases clinically, and reviewing most of general internal medicine diseases and their specializations as well as weekly seminars which held throughout the year under the supervision of the lecturers to discuss various topics and to evaluate the verbal performance of a student.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Define the internal medicine diseases 2. Identify its clinical features. 3. Know the clinical and laboratory methods of diagnosing diseases. 4.Select the appropriate investigations required for diagnosis 5. Know the medications that are used in the treatment of diseases and their complications.
Intellectual Skills	1. Take appropriate history from the patients 2. detect physical signs 3. Interpret the result of clinical data 4. Solve Medical cases
Professional Skills	1. Assess the severity of the disease 2. Judge the priority of the treatment 3. Formulate treatment outline. 4. Manage medical emergencies.
General and Transferable Skills	1. Practice safe medicine 2. Identify critical cases and emergencies 3. Able to manage emergencies appropriately 4. Arrange for consultations when required 5. Participate in continuous medical education program 6. Document medical records
Attitude outcomes	Practice medicine with consideration of law and ethics in the hospital along with other health professionals and societies

Course structure			
Topic	No. Of hours	No. Of Seminars	Names of lectures
Cardiology	40	5	Dr Jassem Mohamed Dr. Thia Abd Kader Dr Arwa al sarraf Dr Mohamed Abd Hadi
Respiratory	40	5	Dr Rami Adil DR Mohamed Jaseem
Endocrine	30	5	DR Wael THanoon DR Mohamed Harith Dr Mohamed Gazi
Nephrology	30	5	Dr Mohamed Gazi

			Dr Ahmed Mohamed
Gastro-enterology	30	5	Dr Abdallh Zuhair Dr Alya Al Zobair
Infectious diseases	30	5	Dr Nassar Galib Dr Salam Fadi
Immunological diseases	10	5	DR Ali Abd Al Rahman
Hematology	30	5	Dr Khalid Al Heroo Dr Alya Al Zobair
Rheumatology	30	5	DR Faher Yousif DR Ali Abd Al Rahman DR Zahra Amer DR Sara HAmed
Neurology	40	5	DR Yahya Kaseem Dr. Omer Abd Al meinm

Teaching and learning methods	
Theoretical lectures	Not applicable
Practical or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	50 seminars in teaching halls and hospital wards

Assessment methods	
Formative assessments	1. Clinical 2. Logbook 3. Seminars
Summative assessments	1. Clinical 50% 2. Theoretical 50%
Pass mark	50%

Resources and requirements	
Essential text books	1. Davidsons Principle and practice of Medicine 2. Macleod's clinical examination
Recommended text books	1. Harrison Textbook of Medicine
Other resources	Up to date, Medscape website

General Surgery

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	**University of Mosul / College of Medicine**	
Department offering the course	**Surgery**	
Name of Academic Program	**M.B.Ch.B**	
Academic Year/level	**6th Medical Class**	
Title of the course	**Bachelor of Medicine and General Surgery**	
Code	**MCSu604**	
Total Course Hours	**Practical hours= 360**	**Total= 360 hours**
Date of specification approval	**1 / 10 / 2021**	

General Aims of Course
The course describes the advanced knowledge of Surgery and it's departments to the medical students in order to build the clinical knowledge and clinical skills in diagnosis and treatment of the different surgical diseases including the emergent conditions, so optimize the medical services to the society.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. Identify the advanced knowledge of Surgery. 2. Identify the advanced knowledge of departments of Surgery. 3. Identify the advanced Skills of the clinical examination.
Intellectual Skills	1. Realize the best method of taking the Medical history. 2. Realize the best method of the clinical examination.
Professional Skills	Differentiate between the different surgical diseases. illusive the clinical examination of abdomen and other parts of body Elicit the emergent cases and how deal with them
General and Transferable Skills	Recognize the advanced knowledge of Surgery and it's departments and how will corporate with clinical skills
Attitude outcomes	1.Recognize any ethical problems in relation to the topics and act accordingly. 2.Recognize the importance of respect of the patient's dignity and privacy.

Lecturer	Hours of Clinical Session / Course
Samir Ibrahim Al – Safaar	5
Mahoomd Al- Jumaily	5
Abdulsalam Thanon	5
Mohanad Adnan Bakr	15
Karm Kamal	10
Firas Mahmmod	10
Khalf Rashaiid	10
Basam Khalid	10
Nuaman Hadii	15
Odyi Hanii	15
Zaid Sadaldeen	15
Asraf Ibrahim	15
Muddather Abdulaziz Mohammed	15
Mohammed Inaam	15
Dina Abdulghani	15
Sahar Habeeb	15
Zaid Shanshal	15
Zaid Tarq	15
Mohammed Atallah	15
Ali Hasan	15
Omer Saad	15
Obai Abdulaziz	15

Teaching and learning methods	
Theoretical lectures	
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	The students are divided into small groups to do seminars

Assessment methods	
Formative assessments	20% Clinical Examination of course(OSCE stations & Slides)
Summative assessments	40% Final Written Examination (MCQ and Essay systems) 40% Final Clinical Examination(OSCE stations & Slides)
Pass mark	50%

Resources and requirements	
Essential text books	1.Baily and Love's Textbook / Short Practice of Surgery
Recommended text books	1.Brows Textbook of Clinical examination
Other resources	Websites

Obstetrics and Gynecology

Course Description

This course includes the scientific, practical and cognitive construction of the subject of obstetrics and gynecology for students of the sixth stage in the Faculty of Medicine. It includes of introducing students to the basic skills that allow them to study and analyze study cases in order to provide health care and raise the efficiency of students scientifically and practically. By providing students with the academic medical information necessary to care for the pregnant woman and the foundations of the birth process and the diagnosis of pathological conditions and complications that may accompany pregnancy and childbirth. And the diagnosis of gynecological diseases with emphasis on developing the student's ability to develop clinical skills and explain ethical principles in dealing with pathological conditions and communication skills with the patient.

Educational Institution/ college	CMUM	
Department offering the course	Obstetric and gynecology	
Name of Academic Program	M.B.Ch.B	
Academic Year/level	2022-2023/ sixth level	
Title of the course	Obstetric and gynecology	
Code	MCOg603	
Total Course Hours	Practical hours=300 hours	Total=300 hours
	Theoretical hours=0 hours	
Date of specification approval	1/9/2022	

General Aims of Course

Building knowledge, ability and skill to accommodate the scientific foundations in the subjects of obstetric and understand the terms of the scientific and practical material.

Intended learning outcomes of the course: By the end of the course, students should be able to:	
Knowledge and understanding:	1. identify the physiological and anatomical changes that occur in the female reproductive system and the rest of the body systems during pregnancy and childbirth. 2.explain the steps of primary health care of pregnant woman 3.describe the foundations of childbirth 4. define and illustrate the basics of diseases and complications that affect women during pregnancy, childbirth and puerperium. 5. summarize the physiology and anatomy of the female reproductive system. 6. explain the basics of diseases affecting the female reproductive system, including infections affecting the female reproductive system, menstrual disorders, disorders that occur after menopause, tumors that affect the female reproductive system of both benign and malignant types, in addition to gynecological diseases that affect girls in childhood and adulthood.
Intellectual Skills	1.obtain the history of the pathological condition correctly from the patient and link it to the clinical data of the clinical examination and the results of laboratory or imaging tests to reach the correct diagnosis of the pathological condition and its treatment 2. Utilization of the results of laboratory or imaging tests used in diagnosis
Professional Skills	1. Conduct the primary health care to pregnant women. 2. distinguish the childbirth and plan for its management 3. diagnose and treat complications and diseases that affect women during pregnancy, childbirth and puerperium, especially common and emergency, in addition to conducting the necessary clinical examination 4. Communicate effectively with the patients. 5. Diagnose and treat diseases affecting the female reproductive system (especially common and emergency ones). 6 .Perform a gynecological clinical examination including "taking swabs and a pap smear" and interpret the clinical finding during examination .

General and Transferable Skills	1. Develop his or her ability to deal with the patient after graduation. 2. Research scientific sources related to the subjects of obstetrics and scientifically approved websites to update his or her scientific knowledge.

Course structure

Topic	No. Of lectures	No. Of labs	Lecturer
Clinical hours			
Tutorials			
Seminars			

Teaching and learning methods	
Theoretical lectures	None
Practical labs or clinical sessions	The students are divided into small groups each of 10-15 students
Seminars and presentations	12 tutorials

Assessment methods	
Formative assessments	1.mini clinical exam(Mini cx) 2.case based discussion (CBD) 3. direct observational procedures(DOP)
Summative assessments	1.Essay 2.MCQ 3.OSCE 4.oral clinical exam
Pass mark	50%

Resources and requirements	
Essential text books	1. obstetric by ten teachers 2. gynecology by ten teachers
Recommended text books	1.Deuharts textbook 2.Essential textbook
Other resources	1.Lectures given by lecturers in the 4th and 5th year 2.workshops, journals, websites

Pediatrics

Course Description

This course description provides a brief summary of the most important characteristics of the course and list the learning outcomes expected from the student to achieve when he has made maximum use of the available learning opportunities.

Educational Institution/ college	CMUM	
Department offering the course	Pediatrics	
Name of Academic Program	M,B,Ch,B	
Academic Year/level	Sixth year	
Tilte of the course	Pediatrics	
Code	MCPe604	
Total Course Hours	Practical hours= 300	Total=300
	Theoretical hours=	
Date of specification approval	12-1-2022	

General Aims of Course

In this course, students learn the science of pediatrics as well as the basic skills of pediatrics that enable them to analyze clinical cases to provide health and humanitarian care to patients and increase their scientific and practical efficiency. It also provides students with the academic medical information necessary to diagnose common or emergency pediatric cases. Student development will focus on learning clinical skills as well as understanding ethical principles in dealing with pediatric cases. In addition, students will develop communication skills with the patient and his family.

Intended learning outcomes of the course:

By the end of the course, students should be able to:

Knowledge and understanding:	1. Implement the guidelines to ensure proper communication and interaction with the patient, and analyze the medical record to accurately comprehend the pathological situation. 2. Determine the best strategy for obtaining, recording, and presenting a clinical case history. 3. Identify" the most important clinical manifestations of pediatric diseases including emergency cases 4. Compare the results of clinical evaluation with the results of laboratory tests to reach a diagnosis of pathological conditions and in a correct academic way
Intellectual Skills	1. Conduct clinical examinations relevant to common emergencies 2. Troubleshooting of the pathogenic symptoms in pediatric cases from the perspectives of anatomy, pathology, function, and diagnostic significance 3. Compose a differential diagnosis of common childhood diseases and what is the proposed treatment for it
Professional Skills	1. Follow the fundamental principles while taking into account the "behaviors and privacy of the patient" during clinical examination and analysis of common pediatric diseases 2. formulate management plans for common and emergency cases in pediatrics 3. Identify complications of childhood diseases, and formulate a prevention and management plan
General and Transferable Skills	1. Energizing scientific knowledge and fusing it with clinical expertise

Course structure

Topic	No. Of lectures	No. Of clinical cessions	Lecturers In all systems
Basic history and physical examination		1 week	Assistant professor Dr. Mazin Mahmoud Fawzi
Respiratory system		1 week	Assistant professor Dr. Aws Hazem Ahmed
Gastro-intestinal system		1 week	Professor Dr. Rikan Suleiman Juma

Cardio-vascular system		1 week	Professor Dr. Riyad Abdullatif Al-Obeidi
Haemato-oncology system		1 week	Assistant professor Dr. Nada Ali Ahmed
Neonatology		1 week	Assistant professor Dr. Rabie Yassin Al-Dabouni
Neonatology		1 week	Assistant professor Dr Ghaith Waddah
Skill lab (advanced and basic life support)		1 week	Dr. Nizar Abdelkader Qandala
Endocrinology		1 week	Dr. Farah Samir Yahya
Nephrology		1 week	Dr. Noor Samir Yahya
			Dr. Noor Buraq
			Dr. Gesar Salim

Teaching and learning methods	
• Tutorials	
• Clinical sessions in pediatric wards, neonatal care units "Teaching Hospital", primary health care center and skills laboratory (using models or educational dolls and computers to display pictures of some cases of pediatrics, newborns and preterm infants or videos to learn the method of clinical examination)	The students are divided into small groups each of 10-15 students
• Seminars and presentations	

sessment methods	
Formative assessments	1. Case-based discussion (CBD) 2. Mini-CEX
Summative assessments	1- 20% of the final grade for comprehensive written, clinical and slides examination conducted by the department at the end of each training period 2- Final examination Theoretical end-of-year exam = 40% of the final grade OSCE Clinical End of Year Exam = 40% of Final Grade
Pass mark	50%

Resources and requirements	
Essential text books	Nelson essentials of pediatrics (eighth edition) 2018
Recommended text books	1. Illustrated textbook of Paediatrics (sixth edition) 2022 2. Nelson textbook of pediatrics (21th edition)
Other resources	NICE guidelines, ROME IV Criteria, Ispad guidelines 2022