



UNIVERSITY OF WARITH AL ANBIYAA  
COLLEGE OF MEDICINE  
ACADEMIC PROGRAM

**2023/2024**

## **I-VISION:**

Our belief in Allah (Almighty) makes us look confidently and optimistically for the near future to be distinct locally and regionally in medical education and scientific research for effective participation in developing our community. **Also our vision specified on** graduates pioneer doctors aspiring authenticity , modernization and scientific distinction, to become compassionate and **skilled healthcare professionals** who make a positive impact in their communities and the world .

## **II-Mission :**

Graduating doctors who are competent, professional, meeting the community needs and mastering the scientific research based on evidence based practice. Promote academic excellence in medical education ,scientific research and health care nationally , regionally and internationally **aiming to advance human health and well-being with a high sense of ethics , professionalism and social accountability**

## **III-OBJECTIVES**

- Develop the organizing structure and managerial performance of the faculty.
- Improve the supportive administrative services for facilitation of the educational process and scientific research for the effective participation in developing our society.
- Support the Quality assurance and prepare the college for accreditation.

- Establish the rules for the ethical aspects of practice and scientific research.
- Promoting innovation , effective communication and leadership skills
- Developing the scientific resources and provide suitable environment for work and education.
- Strategic Planning for financial self - reliance of the college.
- Strategic Planning for the achievement of the scientific excellence of our college in Iraq and the region for gaining the trust of the stakeholders.
- Emphasizing the issue of social accountability in curriculum planning and development
- Adopting the biopsychosocial (phenomenological) model which gives a strong foundation for both patients and students centered approach

**Specific goals:**

**Goal 1:**enhance our quality assurance system to achieve the required national and international accreditation.

**Goal 2:**improve college national and international ranking .

**Goal 3:**strengthening the quality , quantity and impact of medical researches and scholarly activities.

**Goal 4:**engage the community services that promote population health and contribute to enhancing social accountability of the college

**IV-Collaboration** : we believe in the power of collaboration and teamwork, and work to foster a culture of collaboration among our students , faculty , and staff.

**V-Feedback form**

As well as reading through this document when you first receive it, we hope that you refer back to it and use it over the next year.

We would welcome your comments and suggestions regarding the content of the document at any time during this period.

## **VI-Philosophy**

Three principles determine the philosophy of our curriculum:

- **Principle of Integration**
- **Principle of Collaboration.**
- **Principle of Relevance**

Our curriculum take into consideration the implication of educational philosophy of Outcome based education which is a paradigm shift from content based curriculum to outcome/competency based one, and a shift from teaching to learning paradigm.

The curriculum designed to assure fulfillment of the high-level intended learning outcomes and to help students mature as individuals and professionals ready to assume personal responsibility for their actions and decisions and lifelong learning making the care of patient their central concern and providing health service through interprofessional approach.

Outcome-based education focuses on the end-product and defines what the learner is accountable for. Learning outcomes will determine what is taught and assessed and can help to identify what is and is not essential. Having a clear idea

of the desired outcomes does not necessarily have to be restricting as the methods of achieving the outcomes are still flexible.

We adopt Dreyfus Model which is a developmental construct of skill acquisition using five stages, from novice to expert, with each step building on the previous.

A **novice** is rule-based but context-free; an **advanced beginner** takes into account situational aspects; someone who is **competent** is able to devise a plan and decide what is important; someone who is **proficient** uses intuitive behavior in place of reasoned process; and an **expert** routinely makes subtle discriminations and immediate intuitive responses.

## VII- Educational strategy:

Plan to encompass our mission, include:

(1)– *In the field of education* : A- **Educate and train** qualified students with appropriate *knowledge , skills ,and attitudes* resulting in a medical doctor **capable to** :

- Competent at a basic undergraduate educational level.
- Apply diagnostic, critical thinking, and problem-solving skills necessary for proper evaluation and management of common medical conditions and emergencies and with an appropriate foundation for future career in any branch of medicine (all types of medical practice, administrative medicine and medical research)
- Behave ethically and professionally when dealing with patients, their families and other health care professionals

- Behave safely & effectively (recognize own professional limits and seek appropriate consultation from other health care professionals when indicated)
- Undertake the roles of doctors as defined by the health sector.
- Prepared and ready for postgraduate medical education, .
- Establish the foundations to life-long learning ( continuing professional development(CPD)/ continuing medical education (CME), with commitment to continuous self-improvement.
- Meet the requirements of human rights , and Iraqi medical standards .

B- Curriculum design and management:

- Traditional educational system curricula.
- Establishing managerial structures (curriculum committee) and feedback techniques for monitoring and evaluation, and to provide description and judgment about the value or worth of the curriculum plans, processes, and outcomes to provide evidence to inform decision –makers
- Instructional "educational methods:
- Assessments methods:

***(2) – In the field of health care :***

A- Recognize economic, social, psychological, environmental and cultural factors that interfere with health.

B- Provide a **high level** of health care services at different levels to local community and nationally, applying patient safety and infection control measures during practice.

C- Work independently and/or in a team and collaborate effectively with other health care professionals.

D- Define the needs of the health care system and other aspects of social accountability.

***(3)- In the field of research:***

A- Medical researches attainment that keeps **well defined update** of the evolutions and changes taking place nationally and globally.

B- Encompasses scientific research in basic, clinical, behavioral and social sciences.

***(4)- In the field of global health:***

A- Awareness of major international health problems.

B- Health consequences of inequality and injustice- the unjust and avoidable differences in the people`s health across the population and between specific population groups, and measures which are most likely to be effective in reducing these health inequalities.

**VIII-Values:**

***Excellence:*** we strive for in all aspects of our program, from our curriculum to our faculty to our facilities, and committed to continuous improvement.

***Compassion:*** we believe in treating all patients with compassion and respects, and in nurturing a culture of empathy and understanding.

***Lifelong Learning:*** we promote a culture of lifelong learning, encouraging our students to remain curious and continue to grow as a healthcare professionals through their careers.

**IX-Curriculum Overview**

By collaboration and twinning with College of Medicine, University of Karbala, The College of Medicine, University of Warith Al Anbiyaa adopted the integrated, problem based, student centered curriculum that is six years in length and culminated in M.B.Ch.B degree.

***The curricular content taught in the new integrated curriculum (IC) is similar to the previous curriculum; however, the way in which it is taught has changed.***

Instead of being divided into a number of courses based in and administered by the academic departments, the IC is now divided into a number of interdisciplinary “blocks.” Each block is organized according to body or organ systems and planned and taught in a coordinated fashion by faculty from a number of basic science and clinical academic departments. As an example, students in the previous curriculum were taught about the normal structure of the body in three different anatomy courses and the normal function of the human body in the physiology and biochemistry courses.

Students in the IC are now taught about the cardiovascular system in two “cardiovascular blocks”. One block in Year 2 presents in an integrated fashion the relevant anatomy, biochemistry and physiology. A second block in Year 3 presents the major diseases processes (pathology and pathophysiology) and therapeutic options (pharmacology, pathophysiology, medicine, surgery). The clerkships in Years 5 and 6 are now discipline-based, similar to the previous curriculum, but there are some modifications.

This curriculum uniquely prepares students by integrating basic and clinical science throughout all years of medical education, by providing students with educational



tool and opportunity like small group sessions, a team approach and self-directed learning to prepare graduates for the rigors and realities of medicine today. Students leave with critical thinking skills, communication tools and flexible attitudes needed to pursue careers of leadership and excellence in all areas of medicine.

### X-CURRICULUMS STRUCTURE AND ORGANIZATION

The medical curriculum is for 6 years composed of three phases:

- Phase I: "Foundation Year" (year 1)
- Phase II: Year 2 and 3, "Pre-clerkship Phase"
- Phase III: Years 4, 5 and 6 "Clerkship Phase"

#### Curriculum at a Glance:

TOTAL CREDITS/YEAR	CREDITS	SUBJECTS TOPICS	STAGE	No.
42 CREDITS	4	HUMAN BIOLOGY 1	YEAR 1	1
	4	HUMAN BIOLOGY 2		
	6	BIOCHEMISTRY		
	5	MEDICAL PHYSICS		
	2	FOUNDATION OF MEDICINE		
	4	COMPUTER SCIENCE		
	6	Unit 2 Infection and Immunity		
	6	CELL STRUCTURE AND FUNCTION (UNIT 1)		
	2	ARABIC LANGUAGE		
	2	ENGLISH LANGUAGE		
	2	HUMAN RIGHTS AND DEMOCRACY		
	1	COMMUNICATION SKILLS		

47 CREDITS	15 CREDIT	Musculoskeletal (UNIT 3)	YEAR 2	2
	9 CREDITS	Hematology (UNIT 4)		
	11 CREDIT	Cardiovascular (UNIT 5)		
	7 CREDITS	Respiratory (UNIT 6)		
	5 CREDITS	Microbiology and Immunology (UNIT 2)		
42 CREDITS	9 CREDITS	Gastrointestinal (UNIT 7)	YEAR 3	3
	9 CREDITS	Genitourinary (UNIT 8)		
	15 CREDITS	Neuroscience (UNIT 9)		
	9 CREDITS	Endocrine (UNIT 10)		
64 CREDITS	16 CREDITS	PEDIATRICS	YEAR 4	6
	16 CREDITS	GUYNEOBSTETRICS		
	16 CREDITS	SURGERY		
	16 CREDITS	MEDICINE		
60 CREDITS	30 CREDITS	MEDICINE, specialties	YEAR 5	5
	30 CREDITS	SURGERY, specialties		
72 CREDITS	18 CREDITS	GUYNEOBSTETRICS	YEAR 6	6
	18 CREDITS	PEDIATRICS		
	18 CREDITS	MEDICINE		
	18 CREDITS	SURGERY		

**Phase I “Foundation Year”:** is an interface between the high school education and the medical program. It introduces the students to a scientific foundation in Human Biology, Chemistry and Biochemistry, Physics relevant to medical sciences, computer science & Information Technology.

An important characteristic of the Foundation Year is to introduce the students to modern trends in medical education; problem based

learning, small groups learning and study skills encouraging deep and lifelong learning. This is provided through the course of “Introduction to Medical Sciences Education.”

Students should demonstrate academic performance which will allow them to progress to the second phase of the medical program (see assessment).

**The core courses to be studied in Foundation Year are:**

<i>Semester (1)</i>	<i>Credit (unit)</i>	<i>Semester (two)</i>	<i>Credit (unit)</i>
Chemistry (1)	6	Human Biology (2)	4
Human Biology (1)	4	Unit one Cell Structure and Function	6
Medical Physics	5	Unit two Infection and immunology	6
Arabic Language	2	Foundation of Medicine	2
Computer and Information Technology	3	Human rights	2
		English	2
<b>Total</b>	<b>20</b>		<b>22</b>

**Phase I “Foundation Year”:**

**Chemistry for Medical Science:** This course describes general concepts of general chemistry such as principles of measurements, solutions, radiation, laws of heat and energy transfer and reactions equilibrium.

**Organic Chemistry for Medical Students:** This course concentrates on the structure and function of organic molecules such as ethers, esters, alcohols, ketones, carboxylic acid samisen and amides. It also covers biological macromolecules such as lipids, carbohydrates, proteins and nucleic acids.

**Chemistry Laboratory for Medical Sciences:** The laboratory procedures cover methods of identifications, chromatography, synthesis of organic compounds as well as qualitative and quantitative analysis.

**Physics for Medical Sciences:** This course covers atomic spectra, nuclear physics, x-ray applications in biology and medicine, fluids, electricity and magnetism, geometrical optics and waves and sounds.

**Physics Laboratory for Medical Science:** Various experiments covering the topics studied in lectures are performed.

**Introduction to Medical Sciences Education;** It introduces them to the knowledge, skills and attitude needed in order to be a self-directed life-long learner. Study skills which encourage deep learning should be inculcated and developed at an early stage of their education. Students will explore through active learning the broad scope of health and related medical sciences, their future job responsibilities and competencies they should acquire in order to respond to societal needs and expectations. The context of health and wellness will be used in training the students to apply study skills which support critical thinking and life-long learning.

The two content domains of the course “Health and Wellness and Medical Education” are interwoven through a problem-based learning strategy. It also sets the stage to enable the students to be successful when studying medical sciences in an era where scientific knowledge is rapidly growing.

The main strategy of learning will emphasize self-directed problem-based learning. Students will learn in small groups (7 – 8 students in each group) encouraging team work and multi-professional education (Medicine, Dentistry and Pharmacy students). Faculty will play a facilitators role rather than an information giver.

**Human Biology:** This basic course covers the normal structure and function of the cell, basic genetics, basic anatomy, histology and embryology.

This course also focuses on system approach including cardiovascular, reproductive, respiratory, urinary, and digestive and blood.

**Human Biology Laboratory:** This deals with the histology of the different types of tissues. The course uses multimedia and enhanced simulations to consolidate practical knowledge.

### **Phase II – Years 2 and 3 “Pre-clerkship”:**

This phase integrates the four curriculum themes, mainly organ systems structured around 8 units which vary in their duration between 8 – 15 weeks. **Patient Centered Learning (PCL) using written scenarios, simulated** and real patients’ problems constitute the main strategy of learning and teaching in this phase.

**Core knowledge** related to different Basic Medical Sciences “Anatomy, Physiology, Pathology, Microbiology, Pharmacology, Immunology” are integrated through the studied health problems.

**Clinical skills**, population and community educational activities, ethics and professional development are coordinated with the PCL and run horizontally and vertically through the two years of Phase II.

### **PHASE II – COURSE DESCRIPTION**

#### **YEAR TWO:**

Year 2 curriculum comprises three units:

- (1) Musculoskeletal units
- (2).Hematology
3. Cardiovascular
4. Respiratory

During each week the education process starts with PBL session I. During this session you need to nominate a group leader and a scribe, discuss patient scenario (Problem), identify what you already know and what you need to know, agree on learning needs (objectives) and divide tasks between group members.

Following the first session you are encouraged to search for knowledge related to the problem using electronic and paper based resources, peers and faculty.

Various resource sessions, practicals, and clinical skills training will be conducted during the week. "PBL session II" will be conducted at the end of the week to discuss what you have learned, show and discuss your concept map, do the group presentation, give feedback to your peers and facilitator regarding the week's activities and cross check your achievement with the week's and unit objectives.

The "review session" each week before the new problem will give you very valuable opportunity to meet your subject matter experts and bridge any gap in your knowledge related to the previous week.

Self-reflection and feedback on all educational activities is fundamental to continuous improvement in our curriculum. For each of you, goal setting and self-reflection every week will assist you in

achieving success. “This should be part of” your highly organized and maintained educational **portfolio**, which is part of your summative assessment.

## **Musculoskeletal**

**Description:** This 15 week course will build on the four themes introduced in while introducing new concepts within these themes with emphasis on:

- **Theme 1: Health Enhancement Program** - develops strategies for personal health enhancement and ethical / legal issues relevant to professional responsibility, the doctor-patient relationship and public accountability.
  
- **Theme 2: Population Health** - develops an understanding of epidemiological research, study designs, interpretation of statistical information and introduction to critical appraisal of medical publications.
  
- **Theme 3: Foundations of Medicine** - Musculoskeletal, peripheral nerves and human behavior. Examines major concepts within the areas of muscles and innervation. It integrates through 15 PBL important concepts in Basic Medical Sciences.



- **Theme 4: Clinical Skills** - comprehensive medical history taking skills and awareness of key ethical issues involved in communication with patients, family members, carers and health professionals.

Time	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
0800 – 0900	Review session			Practical Gr 1 and 2	C Skills Gr 3 and 4
0900 – 1000	08:30 – 09:30	Resource session – 2 09:00 – 10:00		8:30-10:30	8:30-10:30
1000 – 1100	PBL – Session 1 10:00 – 12:00		Resource session – 3 10:00 – 11:00	C Skills Gr 1 and 2	Practical Gr 3 and 4
1100 – 1200		Practical Gr 3 and 4 10:30-12:30	Resource session – 4 11:00 – 12:00	10:30-12:30	10:30-12:30
1200 – 1300		Compulsory Unit 12:30 – 2:00		Compulsory Unit 12:30 – 2:00	Practical Gr 3 and 4 11:30-1:30
1300 – 1400	Resource session–1 1:00 – 2:00		Resource session - 5 1:00 – 2:00		
1400 – 1500				Resource session - 6 2:00 – 3:00	PBL – Session 2 2:30 – 4:30
1500 – 1600		Practical Gr 1 and 2 2:30 – 4:30			

1600 – 1700						
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**Cardiovascular, Respiratory and Hematopoietic systems (1<sup>st</sup> semester)**

**Description:** This 15 course introduces major concepts related to the Cardiovascular, Respiratory and hematopoietic systems of the human body and the concepts behind Information Management and Health promotion (15 weeks). These concepts are introduced through:

- **Theme 1:** Through Community-Based Programs, the student develops an awareness of the sector’s relevance to the practice of medicine and the socio-economic context of health and illness.
- **Theme 2:** Information Management and Health Promotion, the student develops skills in data management and critical appraisal of evidence and knowledge to assist in clinical decision-making.
- **Theme 3:** Maintaining the internal environment enables the student to study the cardiovascular, respiratory, and hematopoietic systems, from normal structure and function to

pathology of common health problems and their clinical presentations and management.

- **Theme 4:** Clinical Skills assists the student to develop clinical reasoning and focused history taking based on common presentations of diseases related to these systems.

**YEAR THREE:**

**Gastrointestinal /Nutrition / Metabolism and Renal (2<sup>nd</sup> semester)**

**Description:** This course introduces students to major concepts and principles of Gastrointestinal/Nutrition / Metabolism and Renal systems (8 weeks).

- **Theme 1:** Through a Community Partnership, the student develops an awareness of the health sector's relevance to the practice of medicine and the socio-economic context of health and illness.
- **Theme 2:** Information Management and Health Promotion: the student develops skills in data management and critical appraisal of evidence and knowledge to assist in clinical decision-making. The student will develop and implement a Health Promotion project.

- **Theme 3:** Gastrointestinal, Nutrition and Metabolism, Renal, Reproductive and Endocrine systems enable the student to examine three main areas: Introduction to renal endocrinology, sex, reproduction and development and Gastroenterology, nutrition and metabolism.
- **Theme 4:** Clinical Skills assists the student to develop clinical reasoning and focused history taking related to these systems.

## **Endocrine and Reproductive systems**

**Description:** This 7 weeks course provides students with a foundation in Endocrine and Reproductive systems .

- **Theme 1:** Through a Community Partnership, the student develops an awareness of the health sector's relevance to the practice of medicine and the socio-economic context of health and illness.
  
- **Theme 2:** Information Management and Health Promotion: the student develops skills in data management and critical appraisal of evidence and knowledge to assist in clinical decision-making. The student will develop and implement a Health Promotion project.
  
- **Theme 3:** Gastrointestinal, Nutrition and Metabolism, Renal, Reproductive and Endocrine systems enable the student to examine three main areas: Introduction to renal endocrinology, sex, reproduction and development and Gastroenterology, nutrition and metabolism.
  
- **Theme 4:** Clinical Skills assists the student to develop clinical reasoning and focused history taking related to these systems.

**Description:** The courses in Year 4 run horizontally all through the year. Different learning settings are used for learning and teaching. This includes PBL Tutorials, Clinical Skills Lab., Hospitals, Primary Health Care Centers, Preventive, Occupational and different special needs services. The four curriculum themes i.e. Personal and Professional development; Population, Society, Health and Disease; Foundation of Medicine and Clinical Skills run through all the following units. 15 weeks

**Neurosciences – II and Integumentary systems**

**Multi-system–I (Integrated hospital based Medicine and Surgery)**

**Community Health Activities –**

**Clinical Skills – I**

**Theme 1 and 2: Community Health**

**Theme 1:** Develops students' awareness of legal and ethical issues, professional rights and responsibilities, patient advocacy, working in multi-disciplinary teams and identification and implementation of strategies used to meet personal and professional challenges.

**Theme 2:** Develops the student's ability to apply key principles in use and appraisal of evidence based medicine. Enables the student to acquire appropriate skills in environmental and occupational medicine. Five main programs run through the year:

- Family study program
- Occupational Health program
- Community-based research
- Evidence-based Healthcare
- Special needs health and social care services program

**Theme 3 “Foundations of Medicine”:** Multi-systems, written problems which cover important concepts of Pathology, Pathophysiology and Pharmacology related to common Health problems in different Organ systems not previously covered. Neuroscience II and Integumentary will cover fundamentals of the central nervous system and skin problems.

**Theme 4 “Clinical Skills” Medicine 1 and Surgery 1:** Medical and Surgical written and real patient problems relating Basic Medical Science principles to the patient problem presentations. The student will apply the knowledge learnt in previous years to the identification, diagnosis and understanding of common and important illnesses, conditions and disorders, pathophysiology and pharmacology in Medicine and Surgery.

Data collection techniques, clinical reasoning and decision making skills are emphasized in hospital settings, health centers and skills

labs. By the end of the semester, students must be capable of undertaking history and clinical examinations of patients with straightforward medical and surgical conditions, and have an understanding of the relevant investigations and general management plans.

The following units are a continuation of the previous units listed above and includes: **15 weeks**

## **CLERKSHIP PHASE (PHASE III)**

### **YEARS FOUR, FIVE AND SIX**

#### **DESCRIPTION**

The later years of the medical program focus upon learning in the clinical environments. Students are responsible for their learning. The program provides them with different opportunities to encounter patients in different clinical settings. They function as sub-interns responsible under supervision for their patients. Students are attached to a range of clinical settings allowing them to work continuously in the clinical environment and to consolidate their basic and clinical science knowledge. Personal and professional development and patient advocacy skills developed in the early years



of the M.B.CH.B. course will be further developed and extended within a clinical context.

Learning activities focuses upon providing a clerkship experience for students. Clinical skills, practical techniques and procedures and underpinning knowledge specific to each discipline area will be linked to the clinical settings. A particular focus will be given to integrating key knowledge, skills and techniques applicable across disciplines.

In these rotations, the students will be expected to function as members of the service teams and will be assessed according to their ability to contribute to the care of the unit's patients.

- **Theme 1:** The student will demonstrate their abilities to work as an effective member of a multidisciplinary health care team, appropriate professional and ethical behavior, and communication skills with patients and colleagues.
  
- **Theme 2:** The student will demonstrate their understanding of the context of illness, their ability to apply evidence-based medicine to clinical decision making in practice and to access information via technology.
  
- **Theme 3:** The student will demonstrate their understanding of the patho-physiological basis of health and disease, appropriate critical thinking in all aspects of clinical care and a

commitment to independent learning, continuing education and quality assurance activities.

- **Theme 4:** The student will demonstrate appropriate clinical history and examination skills at the standard of an intern, the ability to competently diagnose and appropriately manage emergency and non-emergency cases and their ability to perform relevant clinical procedures

**YEAR FOUR :**

Four clerkship rotations of 10 weeks each related to four main clinical disciplines i.e. Surgery, Medicine, Pediatrics, Ob/Gyn.

- **Obs/Gyn (10 weeks)**
- **Pediatrics (10 weeks)**
- **Medicine - I (12 weeks)**
- **Surgery – I (12 weeks)**
- **Electives “2 weeks”**

All students are offered 2 weeks of electives allowing them to explore educational experiences which they found it interesting. This could be Clinical, Basic Medical Sciences, and Research. Report on their experience during the elective will be presented and constitutes part of their portfolio.

**YEAR FIVE:**

Second rotation of clerkships surgical and medical sub-specialties, Family Medicine and Psychiatry

**Medicine – II (10 weeks)**

Cardiology – 2 weeks,  
Neurology – 2 weeks,  
Dermatology – 2 weeks,

**Surgery – II (10 weeks)**

Urology – 2 weeks,  
Orthopedics – 2 weeks,  
Anaesthesia – 1 weeks,  
Accident and Emergency –3 weeks,  
ENT – 2 weeks

Radiology – 2 weeks,  
Ophthalmology – 2 weeks

**Family Medicine (5 weeks)**

**Psychiatry (5 weeks)**

**YEAR SIX :**

**Stagier/Internship Stage**

**Four Major Rota including Medicine Surgery, Pediatrics and Guyneobstetrics.**

## **ASSESSMENT SYSTEM**

### **RATIONALE AND GENERAL CHARACTERISTICS OF THE ASSESSMENT SYSTEM**

1. Assessment system is developed in order to match the integrated, Problem Based Learning curriculum.
2. Assessment are based on annual assessment system. .

3. Continuous Assessment takes place at the end of units/semester in Phase II and end of each clerkship in Phase III.
4. Summative comprehensive assessments checking the acquisition of intended learning outcomes of each phase will take place at the end of Foundation Year, Year four and end of Year six.
5. Test blueprints are used to guide the identification of what should be assessed, level of expected performance and best testing instruments to be used. This insures adequate sampling and increase the reliability and validity of the examination.
6. Student Assessment instruments.
  - a. Assessment of knowledge at the *know 'recall'* level and the "*knows how*" '*application of knowledge*' levels will be based on context rich of MCQs (A-type questions, one best answer) and Extended Matching Questions – R-type.
    - Constructed response questions
    - Key Feature Questions
    - Short Answer Questions (SAQ) and Modified Essay Questions (MEQ).

- b. Assessment of skills '*shows how*' level, will be assessed using Objective Structured Practical and Clinical Examinations ('OSPE' and 'OSCE').
- c. Portfolios, log books and supervisors' evaluation of student performance will be used in assessing student's population/community based activities and performance in the clerkship. Reflective diary will be an important component of the portfolios.
- d. Peers and superiors' evaluation will be used in assessing student performance in the PBL tutorials and other small group activities including research groups. It is hoped that this student assessment system will provide valid and reliable information about the student.
- e. Direct Observation Clinical Encounter Examination (DOCEE, Hamdy, 2003), using real patients and miniC-Ex examinations will be used during the clerkship phase.

9. **External Examiners:**

They will be invited to oversee the assessment process, assess students' clinical competence and be one of the quality control mechanisms.

**10. Standard setting:**

Modified Angoff's method will be used to set examination standards and guide pass / fail decisions.

**11. Test Item Analysis**

Post examination Test Item Analysis will be used to evaluate the validity and reliability of the examination and provide feedback to the College and students.

**ASSESSMENT IN PHASE I (FOUNDATION YEAR)**

- a. Assessment in the Foundation Year is discipline based.
- b. Mid and End-annual examinations are conducted.

**ASSESSMENT IN PHASE II (PRE-CLERKSHIP PHASE)**

There will be a maximum of three assessments during the years 2 and 3. Each examination will be structured to include two to three systems. The examination tools will include written, OSPE, OSCE, project/portfolio and continuous PBL assessment. At the end of the year, the comprehensive result from all examinations will have the following weightage.

**Years 2 and 3 examinations:** End-year results will be based on the aggregate scores accumulated from the end-of-units assessments during each year (2 and 3). Scores are reported as percentage.

Description	Weightage	
	Year 2	Year 3
Written: MCQ, SAQ and MEQ	50%	45%
OSPE	15%	15%
OSCE (Clinical Skills)	15%	20%
Portfolios (consisting of Research activities and population / community-based activities)	10%	10%
PBL-Continuous Assessment and Portfolio	10%	10%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

**YEAR 3 EXAMINATIONS:**

Consisting of continuous assessment of Multi-system unit, Integrated Medicine and Surgery, Community and Population based activities, Tutorial assessment, Evidence Based Medicine).

**Two examinations will be given:**

i. **End of first semester**, year 4 exam, consisting of:

Written exam: MCQ, SAQ and MEQ 50%



OSCE / OSPE (Clinical Skills)	25%
Portfolio (community based projects and activities, EBM etc)	15%
PBL (Continuous Assessment)	10%
<b>Total</b>	
<b>100%</b>	

Scores derived from end of years 2, 3 and assessments in year 4 will contribute **50%** “Continuous assessment of Phase II”.

*ii. End of Year 3 Comprehensive Examination:* Students are assessed on the different competencies acquired during phase II (years 2, 3 and 4). The examination will contribute **50%** to the final aggregate scores for Phase II.

**The 50% accruing from the comprehensive examination will be distributed as follows**

Written: MCQ, SAQ and MEQ	40%
OSCE / OSPE (10% each)	20%
Hospital rotation (50% of marks from case reports and 50% from 2 clinical examinations)	15%
Community Medicine (Family Health program 5%, Maternal and Child Health 5%, (comprehensive 3 case write-ups and performance	15%

Procedures of Aged Care 5%)

Portfolio (Community Health Activities, Medical and Surgical activities)	15%
PBL (Continuous Assessment)	10%
<b>Total</b>	<b>100</b>
<b>%</b>	

### **ASSESSMENT IN THE CLERKSHIP PHASE III (YEARS 4, 5 AND 6)**

#### **Clerkship Rotations Assessment:**

Clerkship performance evaluation shall be based on:

- Attendance
- Active participation in the clerkship activities
- Portfolios
- End of clerkship examinations

Students shall be evaluated by their supervisors. A satisfactory performance on the clerkship is a **must** in order for the student to qualify to take the end of clerkship rotation examination.

**Clerkship Continuous Assessment** **30%**

- Portfolio

- Clerkship performance and attendance, Active participation etc.
- Log book
- Cases write ups
- Procedures and operative notes
- Problem-Based Learning cases, essays
- Reflective diary
- Critical Appraisal and EBM

**End of Clerkship Rotation examination** **70%**

- Written 25%
- OSCE 20%
- Direct Observation Clinical Examination (DOCE) 25%

**Final Integrated M.B.Ch.B. Examination**

Successful completion and passing of all the Clerkship rotations is a requirement for taking the final Summative Integrated M.B.CH.B. Examination.

**The final M.B.CH.B. Examination shall consist of:**

Written: MCQ, SAQ and MEQ	50%
OSCE	20%
DOCE	<u>30%</u>
<b>Total</b>	
<b><u>100%</u></b>	

### Distribution of marks at end of Phase – III i.e. "end of Year six"

- Continuous Assessment derived from the accumulated scores from the different clerkship examinations in years five and six.

**40%**

- Final M.B.CH.B. Examination "Exit examination" **60%**

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**\_\_Total 100%**

### **Graduation requirements:**

- Successful completion of the medical program with a minimum score of 50%.
- Satisfactory completion of the general and elective University requirements.

## **CURRICULUM OUTCOME COMPETENCIES**

College of Medicine, University of Warith Al Anbiyaa curriculum is developed, organized, and implemented as an outcome-based, integrated, **Patient/student-centered curriculum.**

The undergraduate medical college curriculum outcome competencies and objectives are derived and based on competencies identified by:

- Surveys on the level of kerbala city and nearby cities.
- Two medical education conferences held at 2012.
- Kerbala Medical student's conference. (2012)
- Medical education unit weekly activities and workshops in our college.
- Focus groups among medical students of our college.
- The cooperation and workshops held at Al-Sharjah Medical University.
- **Accreditation Council for Graduate Medical Education.**
- **General Medical Council: Tomorrow doctor.**

These competencies are adapted with sensitivity to the cultural context of our country. Core curriculum content, particularly in relation to patient and population care, and medical knowledge, reflects prevalent and important clinical problems/presentation in the community. Epidemiological data, social, environmental and cultural characteristics of the community influence priority identification of the curriculum content “The must, should and nice to know.”

## COMPETENCY DOMAINS

Competencies are related to six domains:

- A. Patient and Population Care
- B. Knowledge.
- C. Evidence-Based Practice and Lifelong Learning
- D. Interpersonal and Communication Skills
- E. Ethics and Professionalism
- F. Health Care Systems and Cost Effective Practice

### **A: PATIENT AND POPULATION CARE:**

#### **COMPETENCIES**

1. Communicate effectively and professionally with patients, families and groups.
2. Gather essential and accurate information about their patients, for the purposes of problem identification and characterization.

3. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
4. Develop and carry out (patient) management plans, with the engagement of patients in the process as appropriate.
5. Perform competently medical procedures considered essential for the management of common health problems.
6. Advise and educate patients and their families.
7. Use information technology to support patient care decisions and patient education.
8. Provide and advocate for health care services aimed at preventing health problems or maintaining health.
9. Work with health care professionals, including those from other disciplines and professions, to provide patient, family and community care.

**B: KNOWLEDGE:**

## **COMPETENCIES**

1. Acquire a core of basic medical and clinical sciences which are appropriate to the care of a patient and the community. Core knowledge is derived from the underpinning concepts and information of common presentations of health problems (patient/population based).
2. Demonstrate a reasoning and analytic thinking approach to clinical situations and applying medical knowledge in patient problem solving.

## **C: EVIDENCE-BASED PRACTICE AND LIFELONG LEARNING**

### **COMPETENCIES**

1. Exhibit good “information habits”, making decisions based on evidence, when such is available, rather than opinion.
2. Locate, appraise, and assimilate evidence from scientific studies related to their patients’ health problems.



- 3 Apply knowledge of research designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness.
- 4 Demonstrate knowledge of the information resources and tools available to support life-long learning.
5. Understand information technology's impact on basic clinical and biomedical research.

**D: INTERPERSONAL AND COMMUNICATION SKILLS:**

**COMPETENCIES**

1. Create and sustain effective, ethically sound, caring and respectful relationship with patients and families.
2. Work, interact, and communicate effectively with others as a member or leader of a health care team, or other professional group.

**E: ETHICS AND PROFESSIONALISM:**

**COMPETENCIES**

1. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; accountability to patients, society, and the profession; and a commitment to excellence and on-going professional development.
2. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.
3. Demonstrate sensitivity and responsiveness to patients' religion, culture, age, gender, and disabilities.

**F: HEALTH CARE SYSTEMS AND COST-EFFECTIVE PRACTICE:**

**COMPETENCIES**

1. Advocate for quality patient care and assist patients in dealing with healthcare system complexities.
2. Practice cost-effective health care and resource allocation that does not compromise quality of care.
3. Understand how patient care and other professional practices affect the health care organization and the larger society and how these elements of the system affect their own practice.

## KEY CHARACTERISTICS OF THE UNIVERSITY OF WARITH AL-ANBIYAA

### M.B.CH.B. CURRICULUM

- **Continuum of Medical Education:** The curriculum will provide an educational experience that ensures continuing development from undergraduate to internship and further postgraduate training.
- **Outcome competency based curriculum:** Core competencies essential for good medical practice guides the curriculum structure, organization, learning and teaching approaches, student assessment outcome and program evaluation.
- **Integrated curriculum:** The thematic organization of the curriculum allows maximum degree of horizontal integration across the themes and vertical spiral integration within the themes.
- **Systems-based curriculum:** A systems-based approach will replace the traditional discipline-based curriculum.
- **Early introduction of clinical sciences and skills:** This is coordinated with the Organ System organization in the first two

years emphasizing the relevance and application of knowledge learned from the Basic Medical Sciences domains

- **Student-centered flexible learning:** The learning environment will be structured to allow more flexibility and choice in time, place and style of learning.
- **PCL (Patient Centered Learning):** The direct relevance of the practice of Medicine will be emphasized by the use of patients' problems, written and real, as the primary integrative learning modality all over the curriculum.
  
- **Diversity of learning contexts:** The course will be delivered in ways that provide wide experience in community based contexts including rural environments.
- **Generic attributes for medicine:** The new curriculum will promote a culture that recognizes service, teamwork, scientific enquiry and lifelong learning as essential elements in the effective practice of medicine.
- **Constructive assessment:** Is designed to recognize the development of key attributes and qualities rather than to reward short-term superficial learning.

-

## THEMATIC ORGANIZATION OF THE CURRICULUM

Curriculum competencies and related objectives are organized around four themes

- **Theme I Personal and Professional Development**
- **Theme II Population, Society, Health and Illness**
- **Theme III Foundations of Medicine**
- **Theme IV Clinical Skills**

Although all four themes will run throughout the medical program, they **will not be of equal weight**, nor will they be of **constant weight**.

The curriculum **outcome competencies** and related objectives are distributed along the themes and reflected in the themes objectives, contents, learning and teaching approaches and training environment.

### THEME I: PERSONAL AND PROFESSIONAL DEVELOPMENT

Students focus on personal ethics, healthy lifestyle, group support and introduction to communication skills. This will be followed up with a Health Enhancement Program concentrating on self-care (stress management, relaxation training, and coping skills), other aspects of healthy lifestyle and group support, and an introduction to the science of Mind-Body Medicine. This theme will also include an introduction to ethics and medical law. Supporting students in maximizing their learning opportunities in clinical environments is crucial to the success of the curriculum. Key components of Theme I content include medico-legal issues, ethics and health enhancement. Opportunities for inter-professional teaching and learning are also encouraged.

## **OBJECTIVES**

By the time of graduation, the medical graduate will be able to:

- Develop strategies for maintaining mental, physical, and emotional health status and identify ongoing strategies for their own health enhancement.
- Develop skills to become a successful student and lifelong learner.

- Describe strategies for developing personal and professional resilience
- Appraise personal and professional strengths and weaknesses and articulate self-limitations and recognize the need to continuously improve one's knowledge and ability.
  
- Demonstrate ability to work in multi-professional teams understanding and respecting the roles of other health care professionals, and appreciating the need to collaborate with others in caring for individual patients and in promoting the health of defined populations.
  
- Develop and use learning strategies appropriate to clinical contexts
  
- Demonstrate how to access 'networks' in order to meet professional and personal needs.
  
- Articulate professional rights and responsibilities.

- Identify and use strategies for dealing with competing demands in personal and professional life and identify and use strategies for effective time management in both personal life and clinical settings.
- Recognize the similarities and differences between ethical issues in personal and professional life.
- Appreciate the legal framework within which medical practice operates and the legal basis of the doctor-patient relationship and describe ethical and legal issues pertinent to clinical contexts. This includes, but is not limited to: medical power of attorney, role of guardians and agents in the context of refusal of treatment, transplantation, infertility and medical research.
- Understand concepts of professional responsibility and public accountability with reference to the role of the courts and common law statutes and professional self-regulation.
- Describe concepts of responsibility and advocacy in relation to patients and their families and be committed to advocate at all times the interest of one's patients over one's own interests.



- Understand the theories, principles and cultural and religious context that govern ethical decision making, and of the major ethical dilemmas in medicine, particularly those that arise at the beginning and end of life and those that arise from the rapid expansion of knowledge of genetics.
- Respect patient (and physician) confidentiality, demonstrating knowledge of the legal, ethical, and medical issues surrounding patient documentation, including confidentiality and data security.

## **THEME II: POPULATION, SOCIETY, HEALTH AND ILLNESS**

The main purpose of this theme is to provide the structure to develop students' abilities in dealing with society and population issues, as compared with issues concerning the individual. Students will learn about the history and philosophy of the scientific approach to medicine, and extend this to a consideration of approaches to knowledge and information, and an understanding of evidence-based medicine.

Students will explore the various roles of the medical practitioner in society. They will learn to consider the social, environmental and behavioral contexts of illness and the practice of medicine. Other

elements of this theme will be built around health promotion, epistemology, epidemiology, public health, community diversity, population and a global view of health.

#### **OBJECTIVES**

Although this theme has its own learning objectives, it is intended that some of the implementation of the theme will involve building on specific learning experiences that students have in the other themes.

By the time of graduation, the medical graduate will be able to:

- (a) Demonstrate the following professional ***attitudes***:
- A concern for disadvantaged groups in society.
  - Recognition of the beliefs and contributions of health consumers to their care.
  - A cost-effective approach to the provision of medical care.
  - Awareness of the contribution of population-based health strategies to the care of individuals.
  - Awareness of the contributions of research to effective health care practice.
  - A capacity to deal with uncertainty.

- Awareness of him/herself as a knowledge worker.
  
- (b) Demonstrate the following professional **abilities**:
  - Understand the role of medicine in society from a range of different perspectives:
    - The influences of factors such as age, gender, culture, ethnicity and spiritual beliefs.
    - The relationship between “traditional” and other models of health care practice.
  - Understand the factors that influence the organisation and delivery of health care to populations including how local health care systems deliver patient care to different kinds of patients.
  - Understand the contribution of the scientific method to medicine and the nature of evidence.
  
- Demonstrate the practice of evidence-based medicine with respect to:
  - Determining what data exist relative to a clinical question or formal hypothesis, demonstrating knowledge of data sources (including medical records, and online data) at one’s own institution by identifying how these might be used to address a specific clinical question.

- Executing a plan for data collection and organizing data for analysis, demonstrating the ability to properly represent data from a study in a form that is useful and supports computer-based analysis.
- Demonstrating knowledge of the information resources and tools available to support life-long learning.
- Retrieving information, demonstrating the ability to refine search strategies to improve relevance and completeness of retrieved items.
- Filtering, evaluating, and reconciling information, demonstrating the ability to discriminate between types of information sources in terms of their currency, format (for example a review vs. and original article), authority, relevance and availability.
- Life-long continuing medical education.
- Demonstrate the ability to interpret statistical information presented in medical publications.
- Understand the strengths and weaknesses of different research study designs.
- Understand a range of strategies to promote health and prevent disease.

**The contents of this theme are organised around 3 strands:**

### **Health and Society**

- Role of medicine in society

- Users of health services
- Politics of health
- Efficiency and equity in health
- Health services research

### **Health and Information**

- Philosophy of science
- Medicine in the information age
- Medical informatics
- Evidence based practice
- Clinical effectiveness

### **Health and Population**

- Biostatistics
- Clinical Epidemiology
- Health promotion
- Preventive medicine
- Occupational health

Each of these will develop progressively across the five years of the curriculum and will be linked to specific learning experiences integrated with other components of the course.

### **THEME III: FOUNDATIONS OF MEDICINE**

This theme will encompass much of the system-based teaching in phase II (years 2, 3) of the course and the core clinical clerkships in the fourth, fifth and sixth years. Theme III will represent more than half of the overall course. As the term 'Foundations' implies, much of the knowledge and concepts that underpin medicine, both in the basic medical sciences and in the clinical sciences, will be delivered within this theme. Each of the subjects in this theme is organized as an integrated subject with inputs from all relevant departments. In the early semesters, a system-based structure has been adopted, in which the anatomy, biochemistry, microbiology, pathology, pharmacology and physiology of each system will be taught in an integrated manner. Several systems have been combined to be taught either side by side or in a system-integrated approach. Basic medical sciences will be revisited in the latter phase of the curriculum “clerkships” emphasizing the application of knowledge in clinical practice.

### **OBJECTIVES**

By the time of completing basic medical education, the medical graduate will have knowledge and understanding of:

- The normal structure and function of mind and of the body (as an intact organism) and of each of its major organ systems at all stages of life and the interactions between body and mind, and the factors which may disturb these.
- The molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
- The various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neo-plastic, degenerative, and traumatic) of illness/disease and the ways in which they operate on the body (pathogenesis).
- Symptoms, signs, natural history, and prognosis of common mental and physical ailments in children, adolescents, adults and the aged. A more detailed knowledge is required of those conditions which require urgent assessment and treatment.
- The most frequent laboratory and radiological manifestations of common maladies, different diagnostic procedures, their uses and limitations.
- Management of common conditions including pharmacological, physical, nutritional and psychological therapies.

- Principles of health education and behavior change appropriate in specific populations.
- Principles of disease prevention, amelioration of suffering and disability, rehabilitation, and the care of the dying.
- Factors affecting human relationships, the psychological well-being of patients and their families, and the interactions between humans and their social and physical environment.
- Scientific method relevant to biological, behavioural and social sciences at a level adequate to provide a rational basis for present medical practice, and to assimilate the advances in knowledge which will occur over their working life.
- Important non-biological determinants of (poor) health and of the economic, psychological, social, and cultural factors that contribute to the development and/or continuation of maladies.
- The processes by which non-biological determinants influence health, and vice versa.
- Epidemiology of common diseases within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those diseases.

#### **THEME IV: CLINICAL SKILLS**



This theme will encompass the whole range of clinical skills, and will be present in all years of the course. Clinical and procedural skills will be introduced early and practiced often. The approach in clinical skills development will be to develop defined clinical competencies. This will begin with clinical aspects of communication skills and move through history taking and physical examinations to the more advanced clinical and procedural skills. Included also within this theme will be an introduction to the medical work place in all its diversity, and to the healthcare system.

Multi-professional education will be promoted by exploring the possibilities for educational interactions with nurses, paramedics, radiographers and other health care professionals. Elective experience in diverse medical work places, both within and outside the hospital environment will be provided.

#### **OBJECTIVES**

By the time of graduation, the medical graduate will be able to:

- Obtain an accurate holistic and focused medical history that covers all essential aspects of a patient and his/her problem, including issues related to age, gender and socio-economic status.
- Perform an accurate physical and mental state examination.

- Choose, from the repertoire of clinical skills, those which are appropriate and practical to apply in a given situation.
- Interpret and integrate the history and physical examination findings to arrive at an appropriate diagnosis or differential diagnosis.
- Formulate a treatment plan, demonstrating the ability to take action by balancing the relative risks and benefits of outcomes and treatment options.
- Perform routine technical procedures at a level suitable to medical students.
- Recognize serious illness and perform common emergency and life-saving procedures such as caring for the unconscious patient and cardiopulmonary resuscitation.
- Identify factors that place individuals at risk for disease or injury, to select appropriate tests for detecting patients at risk for specific diseases or in the early stage of disease, and to determine strategies for responding appropriately (screening).
- Create and sustain effective, ethically sound, caring and respectful relationships with patients and families.
- Communicate clearly, considerately and sensitively with patients, relatives, doctors, nurses, and other health professionals and the general public.

- Counsel sensitively and effectively and provide information in a manner that ensures patients and families can be truly informed when consenting to any procedure.
- Work in a multi-disciplinary team using both leadership skills and collaboration skills.
- Work as a patient advocate in the health care system.
- Use computer/mobile systems for medical information, patient monitoring and for communication between health care professionals at different sites.
- Use clinical skills in primary, secondary and tertiary care settings.

### **CONVERGENCE OF THEMES**

Our graduates will emerge from the M.B.Ch.B. program with a synthesis of clinical skills, knowledge base and personal attitudes and qualities, which will combine to form the basis of their developing professional abilities. To reach this stage, the graduate will need to have made a successful transition from learning in the four separate themes of the course, to a single model of professional practice. The convergence of themes will accelerate over the last two years of the program, and careful attention to integration between the themes during the early years of the course will assist the process. In addition, expanded use of mentoring and role models in professional practice

will allow students to appreciate how the synthesis of knowledge, skills and attitudes is central to effective and rewarding medical practice.

## References

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## University of Warith Al-Anbiyaa College of Medicine (WCM)

### Intended Learning ( Educational ) Outcomes "ILOs"

The cognitive domains of University of Warith Al-Anbiyaa- College of Medicine (TCM) outcomes are:

**What the doctor is able to do**

- 1- Clinical skills
- 2- Practical procedures
- 3- Patient investigation

- 4- Patient management
- 5- Health promotion and disease prevention
- 6- Communication
- 7- Medical informatics

**How the doctor approaches their practice**

- 8- Basic, social and clinical sciences and underlying principles
- 9- Attitudes, ethical understanding and legal responsibilities
- 10- Decision making skills and clinical reasoning and judgment

**The doctor as a professional**

- 11-The role of the doctor within the health service
- 12-Personal development

**Knowledge (domain keys: 3, 4, 5, and 8)**

**Skills (domain keys: 1, 2, 6, 7, and 10)**

**Attitude and behavior (domain key: 9)**

***Medical Knowledge*** (Integration *of the Basic, social and clinical Sciences in Medicine*)

*K=Knowledge*



Learning Outcomes		Educational Core/ A																										
Cognitive Domains (KSA)	Objectives	D o m a i n K e y	A n a t o m y	C h e m i s t r y	B i o l o g y	P h y s i c s	E n g l i s h	M e d i c a l	C o m p u t e r	P h y s i o l o g y	E m b r y o l o g y	H i s t o l o g y	H u m a n	B i o c h e m i s t r y	P h a r m a c o l o g y	P a r a s i t o l o g y	P a t h o l o g y	S u r g e r y	M e d i c i n e	P a e d i a t r i c	G y n e c o l o g y	C o m m u n i t y	B e h a v i o r a l	M e d i c a l	O r t h o p e d i c s	D e r m a t o l o g y		
K1	Knowledge and understanding of the principles of evidence based medicine.	8	x	x	x	x				x	x	x		x	x	x	x	x	x	x	x	x	X	x	x		x	x
K2	Knowledge and understanding of the normal structure, function and development of the human body and mind at all stages of life and body-mind interactions.	8	x		x					x	x						x	x	x	x	x	x	X	x		x	x	
K3	Knowledge and understanding of the genetic developmental, metabolic, toxic, microbiologic, autoimmune,neoplastic, degenerative, and traumatic noxious effects on the body and mind.	8	x		x					x	x						x	x	x	x	x	x	X	x		x	x	

K4	Knowledge and understanding of the etiology, pathogenesis, pathology and prognosis of disorders in all age groups designed as "common"	8											x	x	x	x	x	x	X		x	x		
K5	Knowledge and understanding of the most frequent clinical ( symptoms and signs ), laboratory, radiologic, and pathologic manifestations of common diseases	8														x	x	x	x	x	X		x	x
K6	Knowledge and understanding of <b>common diagnostic procedures</b> ( laboratory and radiological ), listed in the App. 2. Their indications, contraindications and limitations and interpret the results	3														x	x	x	x	x	X		x	x
K7	Knowledge of the appropriate use of laboratory techniques and hygiene and sanitization, asepsis, infection control, transmission,	3																						
K8	Knowledge and understanding of the basic principles of the management of common conditions and disease : General principles of patient management <b>Drugs:</b> prescribing, selecting method of delivery, calculating dosages, consideration of interactions and adverse effects. <b>Surgery:</b> Recognition of indications for intervention and the available surgical interventions. Appropriate use of informed consent and the understanding of principles of pre-, peri and post-operative care. <b>Therapy services:</b> physiotherapist / occupational therapist / speech therapist etc. <b>Nutrition</b> <b>Emergency medicine</b> <b>Acute care</b> <b>Chronic care</b> <b>Intensive care</b> <b>Palliative care</b> <b>Pain control</b> <b>Rehabilitation</b> <b>Complementary therapies</b> <b>Patient referral</b> <b>Blood Transfusion Services</b>	4																		X				



	<p><b>Radiotherapy</b></p> <p><b>Psychological therapy</b></p> <p>For conditions that require urgent assessment and treatment, more detailed knowledge of management and understanding are required.</p>																				
K9	Knowledge and understanding of the action, metabolism, and toxic effects of drugs and their therapeutic applications, indications, contraindications and side effects.	8																			
K10	Knowledge and understanding of the epidemiology of common diseases and conditions and the systematic approaches in reducing the incidence and prevalence of those diseases.																				X
K11	Knowledge and understanding of the principles of health promotion (maintenance), disease prevention, education, and screening programs.	5																			X
K12	Knowledge and understanding of the principles of management of suffering and disability, rehabilitation and the care of dying, palliative and hospice care, basic pain mechanisms and basic strategies for pain management.																				X
K13	Knowledge and understanding of normal growth and development.	8																			X
K14	Behavioral sciences: Knowledge and understanding of the principles and concepts of normal behavior and mental illness.	8																			
K15	psychology and sociology:  Basic knowledge and understanding psychological, cultural and spiritual well-being of patients and their families, and the interactions between humans and their social and physical environment.	8																			X

## Medical Skill

K1 6	Knowledge and understanding of health care provision systems in a culturally diverse society, their advantages and limitations, the principles of efficient and equitable allocation and use of finite resources, and of local and national needs in health care and the delivery of service.	8		X	
K1 7	Knowledge and understanding of the ethical principles of health care and the legal issues in medicine.			X	
K1 8	Knowledge and understanding of healthy lifestyle.	8		X	
K1 9	Knowledge and understanding of molecular, biochemical, and cellular mechanisms of maintaining homeostasis.	8			
K2 0	Knowledge and understanding of the important non-biological (economic, psychological, social and cultural factors) that contribute to the development and/or continuation of maladies (e.g. domestic violence, ethnicity etc).				
K2 1	Basic understanding of risk management, resource utilization, patient safety, and medical errors.			X	
K2 2	Knowledge and understanding of the need and value of consultations and referrals	8		X	

Learning Outcomes

Educational Co

Cognitive Domains (KSA)  Objectives		D	A	C	B	P	E	M	C	P	E	J	H	B	P	P	P	S	M	P	G	C	B	F	O		
		o	n	h	h	h	n	e	o	h	u	i	u	i	o	a	a	a	u	e	a	e	o	e	o	r	r
		ma	at	em	io	h	n	e	o	h	u	i	u	i	o	a	a	a	u	e	a	e	o	e	o	r	r
		in	om	is	lo	ys	gl	ed	om	ys	mb	is	u	o	h	h	h	h	h	h	h	h	h	h	h	h	
		ny	ny	tr	gy	ics	ish	ic	pu	ry	ry	en	oc	h	em	em	em	em	em	em	em	em	em	em	em	em	
		Key		ry			l	al	ter			gh	st	st	st	st	st	st	st	st	st	st	st	st	st		
							a	te	sc			t	ry	ry	ry	ry	ry	ry	ry	ry	ry	ry	ry	ry	ry		
							n	er	i			s	l	l	l	l	l	l	l	l	l	l	l	l	l		
							g	m	e				o	o	o	o	o	o	o	o	o	o	o	o	o		
							u	in	n				l	l	l	l	l	l	l	l	l	l	l	l	l		
							a	o	o				o	o	o	o	o	o	o	o	o	o	o	o	o		
							n	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							g	l	o				o	o	o	o	o	o	o	o	o	o	o	o	o		
							u	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							a	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							n	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							g	l	o				o	o	o	o	o	o	o	o	o	o	o	o	o		
							u	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							a	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
							n	o	l				o	o	o	o	o	o	o	o	o	o	o	o	o		
S1	The ability to take a satisfactory medical history (accurate, organized and problem focused) from patients, relatives and others including, but not limited to: age, gender, psychosocial, ethnic, nutritional, occupational and sexual dimensions.	1																						X			
S2	The ability to perform an accurate physical examination of patients: (General and systems-based; appropriate for patient's age, gender and state of mental and physical health, in a thorough, sensitive and systematic manner).	1																									
S3	The ability to utilize data (from the history, physical exam, laboratory and other diagnostic results) to identify the disease or health problem( diagnosis ).  The ability to select the most appropriate and cost-effective diagnostic procedures	1																									
S4	The ability to interpret and integrate the history, physical examination and diagnostic methods to formulate a list of differential diagnosis.	1																									

S5	<p>The ability to make management strategy (treatment, and prevention) for diseases and other health problems.</p> <p>The ability apply evidence-based medicine in the management strategy of health care.</p>	1																																							X						
S6	The ability to perform routine technical procedures (see App 1) to entail accurate observation and make critical analyses of data.	2																																													
S7	<p>The ability to document the clinical encounter.</p> <p>Collecting, storing and using information : ranging from simple record-keeping to accessing and using computer-based data</p>	7																																											X		
S8	The ability to apply the principles and concepts underlying normal behavior and mental illness.	1																																													
S9	The ability to diagnose and participate in the management of mental illnesses (basic principles)	1																																													
S10	The ability to apply the knowledge of the therapeutic use of drugs in patient care	1																																													
S11	The ability to recognize normal growth and development	1																																												X	
S12	The ability to recognize the relationship between health and illness, the patient and the environment																																													X	





Learning Outcomes		Educational Course/ Activities																								
Cognitive Domains (KSA)	Objectives	D	A	C	B	P	E	M	C	P	E	H	H	I	P	P	P	S	M	P	G	C	B	M	O	D
		o	a	h	io	h	n	e	o	h	u	u	h	u	h	a	a	a	u	u	a	g	o	e	e	r
		main	tom	em	io	ys	ng	d	o	h	is	u	u	h	a	a	a	u	u	a	g	o	e	e	r	e
		Key	omy	istry	ogy	ics	lish	ical	puter	ryology	stology	man	u	h	a	a	a	u	u	a	g	o	e	e	r	e
						lan	ter	sc	sc	ology	ology	rights	ology	ology	ology	ology	ology	ology	ology	ology	ology	ology	ology	ology	ology	ology
						gu	ence	ience	ience																	
						age	ology	ology	ology																	
AB1	The ability to apply humanistic values in the delivery of health care, to demonstrate responsibility toward the health interests of the patient and the community. The ability to recognize and accept ethical and moral aspects of the profession. To demonstrate honesty and integrity in all interactions, particularly with patients, their families and the colleagues.	9 11																								
AB2	The ability to cooperate with other health care providers, patients and their families from diverse cultural backgrounds. To demonstrate the understanding of, and respect for, their roles in individual and public health care.	9 11																								

AB3	The ability to respect the patients' dignity, privacy, and confidentiality in the delivery of health care as well as the compassion.	9 11																	x			
AB4	The ability to effectively communicate effectively, both orally and in writing, with patients, patients' families, colleagues, health care workers and the others with whom he/she must exchange information in carrying out their responsibilities.	9 11																	x			
AB5	The ability to seek help, when needed, to deal with academic, personal, or interpersonal problems, openness to the feedback.	11																				
AB6	The ability to demonstrate the awareness of the personal manners, dress, grooming, speech, and interpersonal skills expected by the community of a medical professional. The ability to assume responsibility, think critically, exercise sound judgment, and act prudently with full awareness of the limits of one's intellectual and technical abilities.	11																				
AB7	The ability to consistently carry out one's duties with honesty, personal integrity, self-motivation, and self-discipline. The ability to demonstrate willingness to monitor the behavior and competence of other professionals and to deal appropriately with inadequate or unethical behavior, evidence of impairment,	12																				



	unprofessional practices, or conflict of interest.																				
AB8	Recognize the need to engage in lifelong learning and the commitment to engage in lifelong learning in order to maintain sufficient familiarity with scientific advances to ensure they are integrated appropriately with patient care.	12																			
AB9	The ability to recognize personal educational needs, to select and utilize appropriate learning resources, apply principles of evidence based medicine, the capacity to recognize and accept limitations in one’s knowledge and clinical skills, and a commitment to continuously improve one’s knowledge and ability.	12																			
AB10	A commitment to advocate the interests of the patients over own selfish interests, willingness to provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations.	12																			
AB11	The ability to demonstrate personal responsibility, reliability, dependability, open-mindedness, and curiosity.	12																			
AB12	Effective communication skills: besides Arabic language proficiency, to demonstrate the capability to utilize verbal and non-verbal communication specific to culture, gender, and patient understanding.	12																			x



AB: Attitude and behavior

## Interpersonal and Communication Skills

Learning Outcomes	Educational Course/ Activities																										
Cognitive Domains (KSA)  Objectives	D o m a i n  K e y	A n a t o m y	C h e m i s t r y	B i o l o g y	P h y s i c s	E n g l i s h	M e d i c a l	C o m p u t e r	P h y s i o l o g y	E m b r y o l o g y	H i s t o l o g y	H u m a n	B i o c h e m i s t r y	P h a r m a c o l o g y	P a r a s i t o l o g y	P a t h o l o g y	S u r g e r y	M e d i c i n e	P a e d i a t r i c	G y n e c o l o g y	C o m m u n i t y	B e h a v i o r a l	M e d i c a l	e t h i c s	D e r m a t o l o g y	O r t h o p e d i c s	D e r m a t o l o g y

	<b>agenc</b> <b>ology</b>  <b>icens</b> <b>ence</b>
<b>IC1</b>	<p>Effective and honest exchange of information, communication and collaboration with patients, their families, public and health professionals, using active listening and appropriate verbal, nonverbal and written skills.</p>
<b>IC2</b>	<p>Establish therapeutic relationships with patients that will take into account their socioeconomic and cultural backgrounds, and demonstrate the respect, empathy, honesty and emotional support as needed and always follow ethical principles of the medical profession.</p>
<b>IC3</b>	<p>In challenging situation, including delivering bad news, issues related to death, end of life, adverse events, disclosure of medical errors etc, demonstrate sensitivity, honesty, and compassion.</p>
<b>IC4</b>	<p>Keep accurate, comprehensive, timely, legible and reliable medical records, write the notes , write admission workups, hospital follow-ups, focused outpatient workups, outpatient follow-ups etc. in a thorough and focused manner.</p>







IC5	<p>Skilled oral communication (with other members of the team, the patients, caregivers, and the family) related to the evaluation and the management of a patient; verbal instructions to ancillary health care personnel; the diagnosis, prognosis and treatment plan; education regarding lifestyle behaviors, screening and the prevention.</p>																X		
IC6	<p>Recognize the importance of patient preferences when selecting among diagnostic and therapeutic options; appreciate the impact of the disease on the quality of life, well-being, ability to work, and the family</p>																		
IC7	<p>After taking a history and physical examination, present the results in the forms of short oral presentation of the findings that will include chronologically organized development of the present illness, medication list, past history, and pertinent positives and negatives from the family history, social history, and physical examination.</p>																		
IC8	<p>In written, oral, interpersonal, or group presentations, show the effectiveness, critical thinking, creativity, and analytical ability.</p>																		
IC9	<p>Always demonstrate the respect towards others, reliability, responsibility, and honesty in communication with the patients, their relatives, colleagues, peers, medical staff and all other members of the health care team.</p>																		






IC10	By showing appropriate listening and verbal skills to communicate empathy, they will elicit information related to the patient's preferences and provide basic information to the patient, explain the diagnosis, prognosis and treatment plan.	
IC11	Establish the rapport with patients that will help in the identification of the hidden agendas and the recognition of the psychosocial issues, and take an active role in patient education and compliance issues.	X
IC12	Exhibit teamwork and respect toward all members of the health care team, and perform as an effective member of the team by showing adequate interprofessional communication skills.	
IC13	Listen, give and receive feedback.	X



IC: Interpersonal and communication skills



## Professionalism

<b>Cognitive domains</b>	AB 1	
	AB2	
	AB3	
	AB4	
	AB5	
	AB6	




	AB7	
	AB8	
	AB12	
	S23	
	K21	

**Organization and Systems-Based Approach to Medicine (System Based Practice)**



Cognitive domains	S22	
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	K16	
	K22	

**Practice-Based Learning and Self-Improvement: Life-Long Learning and personal Improvement**

Cognitive domains	AB 8	
	AB 9	
	S 24	



	AB 10	
	AB 11	

#### App 1 - Practical procedures

The following are suggested procedures that the new graduate **should be able to carry out unsupervised**. *This could include:*

- **Measuring and recording:**

- radial pulse rate
- blood pressure,
- body temperature.
- peak expiratory flow rate .
- bed side measurement of blood glucose using Reagent sticks with and without a glucometer,.
- urinalysis using Multistix dip-sticks
- fecal occult blood testing
- pregnancy testing,
- interpret a 12 lead ECG,.
- manage an ECG monitor
- interpretation of common and emergency disease by native x ray-( chest-abdomen-trauma)
- Write safe and concise prescriptions and medical orders

- **Administering and doing: (Basic practical skills)**

- First Aid, basic resuscitation and basic life support for adults and children/infants ( BLS)
- administration of oxygen therapy with different devices.
- Using nebulizers and other inhalation devices
- venipuncture and collection of blood samples (Prepare simple blood tests such as complete blood count, blood groups, bleeding time, clotting time and erythrocyte sedimentation rate).
- take a blood culture. - Perform common bacterial cultures

- establish intravenous access and set up a giving set(- Cannulation of veins- Administer intravenous therapy and use infusion devices)
- male and female urinary catheterization,
- Prepare samples for routine urine ( MSU) and stool examination and identify common abnormalities.
- arterial puncture,
- scrub up and gown for surgical and sterile procedures;
- Skin and subcutaneous abscess incision and drainage
- skin suturing,
- wound care and basic wound dressing,
- make up drugs for parenteral administration,
- administration of intravenous, intramuscular and subcutaneous injections,
- Administer local anesthetics
- dosage and administration of insulin and use / prescribing of sliding scales,
- use iv infusion and volumetric pumps,
- take nose, throat and skin swabs
- Insert nasogastric tubes
- perform a 12 lead ECG,.
- Thoracocentesis
- Paracentesis
- Safe blood transfusion
- Manage normal labor
- Perform tuberculin test
- Perform pulse oximetry and bedside respiratory function tests

## App 2 -Patient Investigation

As with practical procedures there are different categories of patient investigation depending on whether or not we would expect a new graduate to be able **to undertake the task themselves or simply to know how the investigation is carried out and when it is appropriate to use it**. Competency in the general principles of patient investigation is essential. ***This could include:***

- **General principles of patient investigation:** Appropriate choice and use of investigation. Requesting/ordering of investigations according to local protocols / guidelines. Obtaining informed consent for investigations. Preparing patients for investigations practically and with adequate information.
- **Laboratory-based investigations:** Demonstrable knowledge of the circumstances in which the commoner laboratory-based investigations are indicated and the procedures required to obtain the necessary material for investigation. Include: Biochemistry, Hematology Microbiology, Pathology ,Cytology, Genetics ,Immunology, Virology.
- **Radiological investigations :** Demonstrable knowledge of the range of radiological investigations available and their appropriate use in different circumstances.

- **Clinical investigations: A number of system-specific investigations which the graduate should know about and may have observed, but would not routinely be expected to perform (c.f. Practical Procedures ) .Exercise tolerance test, Pleural tap/biopsy, Upper and lower GI endoscopy, EEG, Lumbar puncture, Cystoscopy, Cervical smear, Colposcopy, Skin biopsy, Joint aspiration.**

App 3 – common condition and disease process

### FEEDBACK FORM

As well as reading through this document when you first receive it, we hope that you refer back to it and use it over the next year.

We would welcome your comments and suggestions regarding the content of the document at any time during this period.

You can either write your comments in the space below, and send it to the e-mail reply facility on the University of Warith Al-Anbiyaa medical college web site or send an e-mail message to Prof. Dr. Ali Abid Saadon, ali.sa@uowa.edu.iq) You may remain anonymous if you wish but it would be helpful to have some basic information regarding your geographical location, your specialty and grade of post.

Thank you.

26-3-2023

Your name: Prof. Dr. Ali Abid Saadon

Where do you work?: community and family medicine

What is your specialty?: community physician

What position do you hold? Dean

COMMENTS: even though the number of teaching staff is very small (only two), we cover part of the mentioned knowledge, practices and attitudes (theory).