

**Republic of Iraq** 

Ministry of Higher Education and Scientific Research University of Basrah Al-Zahraa College of Medicine



# Standards for Medical Education in Al-Zahraa College of Medicine University of Basrah

معايير التعليم الطبي في كلية طب الزهراء جامعة البصرة

# Introduction

Al-Zahraa College of Medicine adopted the integrative approach, which was taken by an agreement with the College of Medicine, University of Kufa which adopted the curriculum from the Medical College, University of Leicester, UK. This based on an official letter from the Ministry of Higher Education and Scientific Research - Department of Studies and Planning, No. 1/1/2057, dated 3/16/2017, and according to the memorandum of understanding between the Al-Zahraa College of Medicine - University of Basrah and College of Medicine, University of Kufa.

The academic curriculum is called the integrative curriculum dependent on learning student center. The curriculum is divided into two phases: The Phase I include the first three years and Phase II contains the second three years. The curriculum links well the basic and clinical subjects. The Phase I is more basic with less clinical while Phase II more clinical less basic subjects.

# Vision:

To achieve excellence in medical education and to be an internationally accredited medical college. This will improve the health status of the population. Through graduating skilled medical students and preparing them to be professional doctors and distinguished researchers to find solutions to health problems that society may face in order to reach better health care without discrimination or injustice to patients and the healthy environment in which they will be work. By use developing diagnostic techniques and treatment processes to serve the health, social and economic status of patients, by an advanced scientific method. showing professional attitude and are competent as medical practitioners, with emphasis on life-long learning, critical thinking, and humanitarian and ethical approach. This will be achieved through preparing a scientific environment that fosters integrated, student-centered medical education, attracting national and international students, and the distinguished research programs that are compatible with the health needs of the community, and the distinguished care and services that are the ultimate goal of all of this is the benefit of the patient. This is achieved through close follow-up from all the real stakeholders, namely the students, teaching and administrative staff, health, educational and professional institutions, patients, and their families.

# Mission:

1. Graduating skilled medical students and preparing them to be professional doctors to achieve better health care.

2. Achieve excellence in medical education in order that Al- Zahraa college of Medicine be an internationally accredited medical College.

# The Aims:

1. Attracting students who graduate from high school, the sixth stage, the scientific branch, who have the highest averages in the baccalaureate exams (ministerial exams), as they are mentally qualified for medical education in the college.

2. Graduating safe and competent doctors by providing results-based medical education that enables medical students to acquire knowledge, skills and attitudes related to the health care system and respond to the health needs of the community. This is implemented through learning more than teaching, which applying via student learning center.

3. To provide patient-center care, with an emphasis on a compassionate approach through the application of effective communication skills, humane and ethical principles, non-discrimination and non-injustice towards patients and staff in all aspects of medical practice.

4. The College will support distinct lines of research aimed at solving problems related to health, patient care, medical and biomedical sciences, and medical education.

5. Preparing the necessary infrastructure for a scientific environment that supports learning based on long-term problem-solving, promotes innovative achievements and encourages exchange local and global partnership to reach a better local and global health standard.

6. Creating a postgraduate system similar to primary studies in terms of integration in blending biomedical learning with clinical learning and linking the results of studies and research to solutions of health problems in society.

7- The college is committed to spreading the concept of life-long learning to the students by asking them to follow modern research, conduct seminars, applying critical appraisal of research, and adopt a model to clinical solve problems and Clinical skills foundations.

# The integrative curriculum:

The theory is based on moving the student from the principle of attending lectures and then studying the scientific information in them and the exam and after a period of forgetting about it, this is what happens in most classical education curricula, to the principle of education based on learning and thinking to find solutions and communicate with others. The principle of the exam is for learning and not for testing. This is the principle of education based on outcome and called outcome-based education.

# Aspirations of the integrative curriculum of Al-Zahraa College of Medicine:

The college relies on the integrative curriculum that links the biomedical sciences with the clinical sciences without separating them from the other in a way that ensures that basic and clinical information is obtained at the same time. The student does not need to remember the scientific basis of the clinical subject, like remembering anatomy separately from diseases or remembering microbes separately from the clinical condition that causes or results from it. Therefore, the principle of discussions in small groups session was adopted to discuss the clinical cases on which lectures in large groups are based. In the philosophy, this will make the students to be communicate and work as team to solve health problem when they will be a doctor.

# The basic buildings of the integrative curriculum at Al-Zahraa College of Medicine:

1- Al-Zahraa College of Medicine used integrated curriculum to ensure getting the Medical Learning Outcomes:

- The doctor as a scholar and a scientist.
- The doctor as a practitioner
- The doctor as a professional
- The doctor as a humanist

These outcomes are designed to remain with the student permanently during his studies, after graduation, during his training in hospitals, while completing his graduate studies, and working as a professional doctor in the health sectors.

2- The curriculum aims to make students learn the mechanisms of teamwork to serve the patients they will serve in future.

This can be identified by working in small groups, from which it is accepted that the answers are collectively resulting from the discussions of 8-10 students with each other in the discussion hall.

3- The curriculum was built to integrate basic and clinical concepts, and this is what can be observed in the nature of the integrative curriculum, in which the basic sciences such as Anatomy, physiology, Biochemistry, Biology, Microbiology, and Pathology are integrated into modules such as Tissue of the body, Musculo-skeletal, Molecular gene and diseases; Metabolism, infection and immunity; Mechanism of diseases, which they include basic and clinical information together.

4- The curriculum takes full care of the outcomes, which are supposed to represent a doctor who possesses the sciences qualified to know society and the health conditions it may experience and the mechanisms for understanding the social and psychological conditions of society and the individual. This is evident from the first academic year (Semester 2), in which the student learns the module Health and Disease in population and in semester 4 Health and disease in society.

5- The integrative approach at Al-Zahraa College of Medicine adopts teaching medical ethics to students, which is considered one of the features that the outputs of this system must possess. This can be seen in many of the lectures that are given, as it is noted that there is a slide called medical ethics at the end or beginning of many of the lectures that require this.

In addition to the human rights module in the first stage and the medical ethics module in the fifth stage.

6- The curriculum of Al-Zahraa College of Medicine believes that the student's learning of clinical medical concepts must be early from the first day of entry, and because the first semester includes compulsory ministerial subjects such as computers, the English language, human right, and others, interest in clinical skills appears in the second semester of the first year within a module called "Clinical Skills Foundation", which continues in semester 2, 3, and 4 to be ready as a professional doctor in future.

7- The curriculum is concerned with medical solutions to community health problems, and the student begins to delve into the mechanisms of thinking

about solutions to those problems and how to think like a doctor within the a module called "Clinical Problem Solving", which continues in semester 2,3 and 4. 8- The curriculum pays great attention to self-criticism, self-refinement, and finding solutions to challenges at the personal and professional level and this can be seen clearly in program called "Personal Professional Development Program", which help student to develop their ability and pass the challenges to be effective as a doctor in health sectors.

9- The college curriculum pays great attention to making students learn medical concepts for life by learning the mechanisms for researching health problems published in international journals and summarizing them. This is reflected in a module Health and Disease in population and learning how to present their finding in a seminars which present by students in most of the modules based on learning how to solve health problems related to each modules information and it's a backbone of program (PPDP).

# Elements of curriculum implementation.

The implementation of the curriculum at Al-Zahraa College of Medicine depends on basic elements to reach the goals desired by the college, and these elements are:

1- **Students:** The basis of work in the college depends on the student in the college, and this is what the student knows since entering the college, as it is the basic building block and product that the college aspires to.

2- **Teachers:** It also depends on the teaching staff, which knows very well that the task of achieving the vision, mission, and goals depends on their effort in implementing the tasks assigned to them. They know very well that the main goal is to bring the student to what the college's mission.

3- **College administration:** Which includes the college council, represented by the dean of the college, Vices dean, heads of academic branches, and quality assurance department and student affairs department. The college administration also relies on the officials of the permanent committees to carry out tasks that serve the vision of the college.

4- Advisory Council: In order to reach its mission and aims, the college relies on an external advisory council made up of a group of veteran doctors who have studied in medical colleges and worked in hospitals for many years and are known for their knowledge and bright opinions. The Advisory Council provides the necessary scientific support in consultation cases to reach the college's published goals. 5- **Student Council:** The college relies on representatives of academic levels who are elected by the students every year. Mostly there are male and female students for each stage, and everyone is represented by one student who is a delegated member of the college council who is called when discussing student matters or matters that need the students' opinion.

# Teaching and Learning Strategies:

Each subject called Module and each stage splits in to two semesters.

# Phase I:

# First Stage:

In **First semester** which called **S1**, there are a compulsory subjects applied by ministry for all Medical Colleges, it contains Medical Physics; Medical Ethics; Computer science; Human Rights and English Language.

The **Second Semester** which called **S2**, there are 4 modules, Molecular, Genes, Disease (**MGD**); Tissue of the body (**ToB**); Metabolism (**MB**) and Heath of Disease in Population (**HDPop**) and two horizontal modules; Clinical Skill Foundation Course (**CSFC**) and Clinical Problem Solving (**CPS1**).

# Second Stage:

**First Semester (S3)** includes modules; Membrane and Receptor **(MaR)**, Musculoskeletal **(MSK)**. Cardiovascular **(CVS)**, Mechanism of Diseases **(MoD)**. In addition to **CPS II and CSFC II**.

**The second Semester (S4)** include modules Gastrointestinal **(GIT)**; Respiratory System **(Resp)**; Urinary system **(UR)**; Infection and Immunity **(In&Im)** with the horizontal course of **CSFC III**.

# Third stage:

**First Semester (S5)** includes module Head and Neck **(HaN)**; Infection and Immunity **(In&Im)**; Reproductive System **(Rep)**; Health in Society **(HSoc)** in addition to student selective component **(SSC I)** and **CSFC**.

**Second Semester (S6)** includes Clinical Pharmacology and Treatment **(CPT)**; Nervous system **(NS)**; Integrative medicine **(Integr)**; People and long term disease **(PLD)**, in addition to student selective component **(SSC II)** and **CSFC**.

# Phase II:

# Fourth stage

Curriculum of fourth stage includes Endocrines and Nephrology; Gastrointestinal Tract; Musculoskeletal system; Cardiorespiratory Block. This semester split in to two parts, the first part, two blocks start from September to January and the second part, the other two blocks from January to May.

# Fifth Stage

Fifth stage include four blocks; Perioperative and childcare which starts from September to January, and Reproductive Care and Special Sense block starts from January to May.

During this time, students will also experience a longitudinal Clinical Competencies and Connections Course which will include assessment of general clinical skills, overarching content in disciplines such as health care systems, career development activities, and opportunities for reflective exercises with faculty and peers.

# Sixth stage

In the sixth stage also four blocks, Hematology and Oncology; Chronic care; Acute Care; Psychiatry and Mental health.

# The Lifelong Learning curriculum.

It has been emphasized in all curriculum modules, and this is referred to in all meetings of the teaching staff with students in the meetings. We ask student to create peer-peer interaction learning. One of the manifestations of this is working together effectively in small group session and teaching students to deliver lectures in the form of seminars to other students.

# Personal Professional Development Program.

It has been adopted horizontally in the curriculum, meaning it continues from the second semester until the end of study in the college, and through it the student learns about the challenges facing him and how to overcome them with the help of this program and the mentoring professors.

# Lectures and how to conduct.

The lecture schedule for the first three years (Phase I) was divided perfectly, as the student only studies **one subject per day** consisting of two hours of lecture in the Hall lecture, then takes a break for half an hour, then goes to the small discussion halls or to the skills laboratory and the anatomy laboratory for a period of hours. This has been adopted from the first stage of establishing the college 2018 until now and is considered an advantage as the student is focused on one topic for the whole day and does not experience a sudden change of information from one topic to another.

Among the organizational matters that took place in the college to implement the lectures are:

1- The lectures were organized in a unified manner for each semester, including a unified format for each semester.

2- A preparation day has been approved for theoretical lectures and discussions in small groups, at least **FOUR** days before the lectures. On this day, a meeting is held for the module members to discuss the weekly lecture, along with a discussion of the small group curriculum and the mechanisms for implementing it in the hall, how the teaching staff are distributed among the small halls, and how the groups are managed. The lecture is then uploaded to the students on the classroom for each module.

3- The teaching staff participating in preparing the lecture will be present in the lecture hall with the students to confirm the work of the teaching staff as a team. In addition to the presence of the names of all staff on all teaching lectures and pictures of the teaching team at the end of the lecture. Which makes the student always accept the idea of working as a team.

# Small session and how to conduct.

The small group is a student learning center which its scientific material contained in the module workbook for student are relied upon, with presence of tutor book for the teachers.

All scientific materials are discussed, reviewed and updated on the **day of preparation** for the weekly lectures, which is carried out by the staff of each module weekly and four days before session time. Small groups are carried out collectively. Small group halls contain 8-10 tables, each of which accommodates 8-10 students. The time for solving issues in the sessions is regulated by the session supervisors. The session may take from 2-3 hours.

Recently, small group sessions were changed into Team base learning (TBL).

# TBL element.

Group of students are prepared to the TBL session by divided the students depending on their diversity of knowledge to form teams. student who has a good experience would be distributed among each group to ensure heterogeneity. Because the huge number of students, group may have 8-10 students to achieve maximum discussion. Session material of each TBL session is sent to the student's classroom before the time of the session to ensure prereading for the students before coming to the session. In time of session, the teacher used Individual Readiness Assurance Test (IRAT) to ensures individual accountability for the assigned readings and is generally а true-false/multiple-choice quiz. Next, a Group Readiness Assurance Test (GRAT) which uses the exact questions provided on the IRAT but discussed by the group, each member must voice and defend his or her choice on every question. This type of discussion should provide immediate feedback from everyone.

Next step will be Application Assignment (AA). The teacher introduces an application exercise to the groups. The application encourages the students to use the knowledge that gained in the pre-readings and RAT exercises in a clinical situation.

# Expected outcomes from the educational method in Al-Zahraa College of Medicine.

Al-Zahraa College of Medicine relied on the integrated curriculum based on "Outcome Based Education theory", and the learning outcomes were noted in the Tomorrow's Doctors (2009) outcomes. Our college quotes the applications that mentioned in tomorrow's doctors and always asked teachers to study and understand the concepts in the Tomorrow's Doctors.

# The Doctor as a Scholar and Scientist.

1. Apply social science principles, method and knowledge to medical practice.

- a) Explain normal human behavior at a societal level.
- b) Discuss sociological concepts of health, illness and disease.

c) Apply theoretical frameworks of sociology to explain the varied responses of individuals, groups and societies to disease.

d) Explain sociological factors that contribute to illness, the course of the disease and the success of the treatment- including the issues relating to health inequalities, the links between occupation and health and the effects of poverty and affluence.

e) Discuss sociological aspects of behavioral change and treatment compliance.

2. Apply to medical practice the principles, method and knowledge of population's health and the improvement of health and healthcare.

a) Discuss the basic principles of health improvement, including the wider implications of health, health inequalities, health risks and disease surveillance.b) Assess how health behaviors and outcomes are affected by the diversity of the patient population.

c) Describe the measurement methods relevant to the improvement of clinical effectiveness and care.

d) Discuss the principles underlying the development of health and health service policy, including issues relating to heath economics and equity, and clinical guidelines.

e) Discuss from a global perspective the determinants of health and disease and variations in healthcare delivery and medical practice.

3. Apply scientific method and approaches to medical research.

Critically appraise the results of relevant diagnostic, prognostic and treatment trials and other qualitative and quantitative studies as reported in the medical and scientific literature.

# **Outcomes 2: The Doctor as a Practitioner.**

The graduate will carry out a consultation with a patient. Take and record a patient's medical history, including social and family history, talking to relatives where appropriate.

# Assessment strategies:

'The aim of AL-Zahraa College of Medicine is to ensure that assessments are appropriate, valid, reliable, generalizable, and fair and are designed to ensure that graduates have achieved all the competences specified by the Ministry of Higher Education and Scientific Research and Body of Deans of medical college in Iraq which all compatible with NCAMC which fit to practice as safe junior doctors armed with knowledge, skills and attitude."

Information details of the assessment can be found in Assessment code of practice files of Al-Zahraa College of Medicine, which was based on the code of practice of Medical College of Kufa University and Leicester College of Medicine.

## Introduction of the assessment policy:

The primary purpose of assessment of the **core curriculum** is to provide for all students a powerful stimulus for cumulative, integrated, deep learning which will underpin clinical practice for life. The assessment always based on blue print of assessment.

Assessments are designed to identify those students who are not ready to progress from one year of the course to the next and those students who are progressing exceptionally well.

The key feature of assessment is that the content which is assessed is cumulative. The style of examination is also intended to test the application of this progressive competence to clinical problems, and the marking and methods used to determine grades are set to encourage breadth of learning, and to discourage as strongly as possible the adoption of selective, focused learning strategies.

The M.B., Ch.B. program is a modular program. The program is taught in an integrated manner and all summative assessments are integrated. In addition, there will be no compensation between major elements of the assessment package. The college is required to demonstrate that students are able to practice as safe future doctors.

The assessment package (including summative and formative assessments) is intended to ensure students meet the Medical Learning Outcomes:

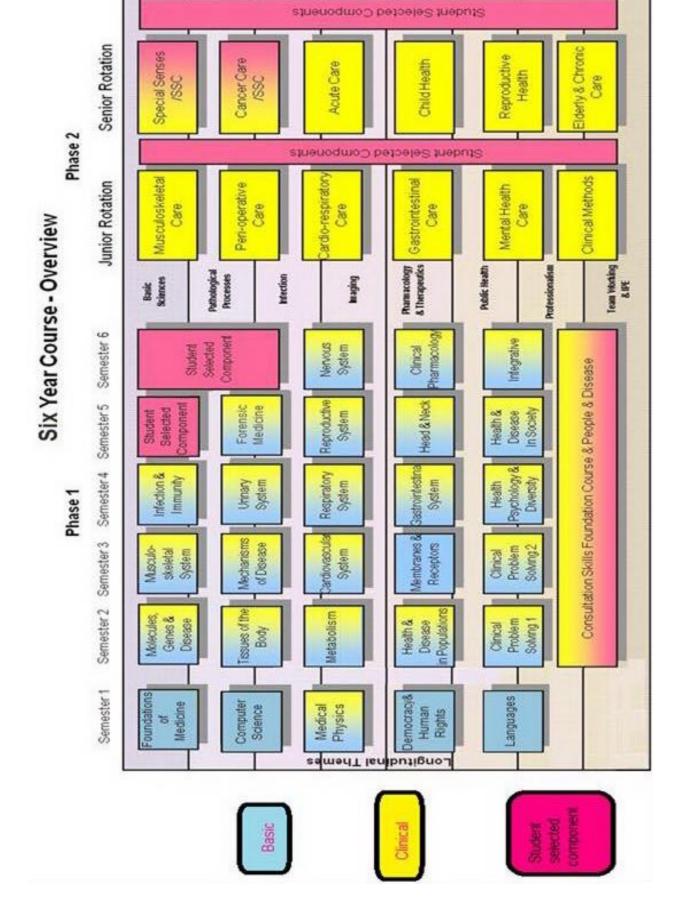
- The doctor as a scholar and a scientist
- The doctor as a practitioner
- The doctor as a professional
- The doctor as a humanist

The Medical School has put in place a uniform pattern of assessments with common principles for each year of the course.

Within every year of the M.B., Ch.B. programme there will be: An end of year examination

	Phase 1							
S1	S2	S3	S4	S5	<b>S</b> 6			
امدامييات الطب (FoM)	Molecular& Gene Disease (MGD)	Cardio- Vascular System (CVS)	Urinary System ( US)	Forensic Medicine (FM)	Personal Professional Development Program (PPDP)			
حاسبات(Com)	Tissue of the Body (ToB)	Mechanism of Disease (MoD)	Health psychology (HPs)	Selected Student Components (SSCs)	Selected Student Components			
الفيزياء الطبية (MPh)	Metabolism (Mb)	Musculoskel etal (MSK)	Infection & Immunity (In & Im)	Head & Neck (H & N)	Clinical Pharmacology (CPh)			
حقوق انمىان(HR)	Health & Disease in Population (H &DP)	Membranes & Receptors	Respiratory System ( RS)	Health & Disease in Society (H&DS)	Integrative (Int)			
اللغة الانكيزية	Clinical Problem solving	Clinical Problem solving	Gastro- Intestinal System	Reproductive System (RS)	Nervous system (NS)			
(E)	(CPS1)	(CPS2)	(GIS)	-,,				

Phase 2					
Blocks	Blocks	Blocks			
Critical appraisal	Child Health Block	Cancer care & hematology			
Gastro-intestinal Care Block	Peri-operative Care	Acute care & chronic care			
Musculo-skeletal Care	Special Sense	Mental health care & neurology			
Cardio-respiratory Care	Mental Health Care				
Endocrine, DM and renal	Student-selected				
Care	Components				
Clinical Methods					
Student-selected					
Components					



# **Phase One**

# **Stage One:**

# **1.1THE CREDITS AND TOTAL CREDITS OF FIRST STAGE**

First s	First semester (S1)					
No.	Modules	Theoretical (hours)	Small groups(hours)	Practical (hours)	Total credits	
1	Foundation Of Medicine	60	-	-	4	
2	Medical physics	30	-	60	4	
3	Computer	30	-	60	4	
4	English Language	15	-	30	2	
5	Human Rights and Democracy	30	-	-	2	
	Total				16	

### **Introduction:**

The first stage of Al-Zahraa College of Medicine includes a set of separate subjects that do not represent an integrated curriculum in the first semester. The class focuses on learning the student the English language due to its importance and because the curriculum at Al-Zahraa College of Medicine is in the English language. The student also learns basic medical concepts through the basics of medicine lesson, which focuses on the student's knowledge of the history of medicine, medical terminology, and general concepts of medicine. The curriculum also addresses the basics of medical physics and applications of physics in the fields of medicine. In addition to learning the student computer skills and IT techniques to the extent that he benefits from them. The curriculum tend to focus on learning the student the concepts of human rights and democracy.

	Second semester (S2)						
No.	Modules	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits		
1	Molecule, Gene & Disease	30	30		4		
2	Tissue of the Body	30	30		4		
3	Metabolism	30	30		4		
4	Health and Disease in population	30	30		4		
5	Clinical problem solving 1	30	30		4		
6	Clinical skills foundation	-	-	30	1		
	Total				21		

credits of first stage is 37.

## **Introduction:**

In this semester, the integrative curriculum begins and includes six modules that integrate with each other to accomplish the task of familiarizing the student with the body's tissues by Tissue of the Body (ToB) module and the mechanisms of their interactions with the physiology of tissues and cells by metabolism module (MB) and linking them to genes and the genetic diseases resulting from them in module Molecular- Genes and diseases (MGD) and learn the students the information of health and disease in a concept of Health and Disease in Population module(HaDPop). This is in harmony with the student's clinical training through the modules Clinical problem solving 1 (CPS1) and Clinical Skills Foundation 1 (CSF1).

The structure of the modules includes large group lecture which take 2 hours and small group session which take 2-3 hours.

Each session is prepared by teaching team three days before the session date and appaired in module internet classroom at least two days before the session time.

# Module's structure:

# Tissue of the Body (ToB).

## The aim of the module:

The aim of this module is for students to understand the general relationship between the processes involved in chromosome behaviour, gene expression and the activity of cells. Students should gain an understanding of the fundamental processes of inheritance and mutation and how these may affect patients. Students should

\* Total

appreciate the variety of protein structures necessary to carry out the range of cellular processes and be able to relate genes to nucleic acids and proteins in the overall process of gene expression, including protein synthesis and secretion. Students should gain an understanding of the use of molecular analyses in a clinical situation, and some of the ethical issues associated with it.

### Workbook:

This workbook contains intended learning outcomes, glossaries, lecture notes, work session questions and details for self-directed learning for sessions 1-6 and 8-13. Sessions 7 and 14 will be dealing with review and formative assessments.

# Lectures, Work Sessions, and Private Study:

The module is taught in 21 lectures and 12 work sessions over twelve weeks, and the seventh & fourteenth sessions will be revision. The lengths of lectures and work sessions may vary – please always check your timetable. Attendance at both lectures and work sessions is compulsory and will be monitored. In addition to lectures and work sessions, a considerable amount of private study is expected, for which directed learning is indicated per session as guidance. For the work sessions students are expected to work in small groups. You have been allocated a group number; always work in the same group.

### Timetable:

The overall timetable provided for all sessions should be considered provisional; any changes to this will be emailed to you. All rooms and lecture theatres are located in the Al-Ameed Medical College. Between some lectures there may not be a timetabled break – please get from one to the other as quickly as possible.

### Attendance and Assessment:

An important component of assessment is evidence of your attendance, which will be monitored both at lectures as well as work sessions. Please be aware that it is your responsibility to sign the attendance sheets. There will be mid and last module formative assessment in weeks 7&14, respectively, containing short answer questions that students will be able to complete in their own time. The module will be assessed on the basis of satisfactory attendance and also in End of Semester Assessments (ESAs) and OSCEs throughout Phase I, including the Phase I assessments and PhaseI OSCE. Recommended Textbooks:

• Baynes & Dominiczak – Medical Biochemistry (3<sup>rd</sup> ed, 2009,

978-0323053716)

- Cummings Human Hereditary (9<sup>th</sup> ed, 2011, 978-0840053183)
- Lieberman & Marks Marks' Basic Medical Biochemistry

(4<sup>rd</sup> ed, 2013, 978-0781770224) 978-1-60831-572-7

Other Useful Textbooks:

- Alberts *et al.* Essential Cell Biology (3<sup>rd</sup> ed, 2009)
- Harvey & Ferrier Lippincott's Illustrated Reviews: Biochemistry (5<sup>th</sup> ed, 2010)
- Chandar & Viselli Lippincott's Illustrated Reviews: Cell and Molecular Biology (2010)
- Lieberman et al. Marks' Essentials of Medical Biochemistry (2007)
- Read & Donnai New Clinical Genetics (2<sup>nd</sup> ed, 2011)

# MODULE OVERVIEW

# Work Session Questions and Private Study Questions:

The questions and problems set for each of the work sessions and the private study questions posted weekly on Model have been designed to help you engage with the subject. Some of these questions will be easy and will test your knowledge of the subject; other questions will be harder and will require you working through them as a group or may require you working through them on your own after you have revised and have gained a broader understanding of the subject.

Each of these questions will be labelled with a 'difficulty-score' to give you an indication of its complexity.

Difficulty = 1:	Easy – this question will mainly test knowledge.
Difficulty = 2:	Medium – this question will mainly test understanding.
Difficulty = 3:	Advanced – this is a hard question that will help you engage
	with the subject.

Working through 'difficulty 3 questions' (perhaps more than once!) should be increased your understanding of the subject. It is very important that you will try and answer these questions, even if you may find them very challenging initially!

In this workbook each of these questions will also have a referral to intended learning outcomes (LOs) from within that session or previous sessions, or even a referral to intended learning outcomes from one of your other Semester 1 modules. This is to guide you how work session questions and private study questions should facilitate your learning!

# **ESA questions:**

The vast majority of ESA (End of Semester Assessment) questions will be crossmodular. **Sub-questions that relate to the Molecules, Genes and Disease module will be mainly testing your understanding, and sometimes testing your knowledge.** The 'difficulty-score' as explained above will therefore give you an indication as to what level the ESA questions will be, (i.e. mainly difficulty 2, sometimes difficulty 1), but questions similar to a sub-questions of a 'difficulty 3 question' may also appear in the ESAs.

ESA-style practice questions can be found on Moodel under Assessment and will also appear as formative mid-module assessment of this and other semester 1 modules.

# **PROVISIONAL TIMETABLE:** Starting at Sunday dated 7/10/2018.

Session	Date & Time	Session Title		
No.				
Session 1	According to the timetable	INTRODUCTION TO THE CELL AND BIOLOGICAL MOLECULES		
		Introduction to the module.		
		Lecture 1: Introduction to the cell.		
		Lecture 2: Amino acids and proteins.		
Session 2		PROTEIN STRUCTURE AND FUNCTION		
		Lecture 3: Protein folding and function.		
		Lecture 4: Haemoglobin and myoglobin.		
		Work Session 1:Cell and biological molecules		
Session 3		ENZYMES AND ENZYME REGULATION		
		Lecture 5: Enzyme activity.		
		Lecture 6: Regulatory strategies.		
		Work Session 2: Protein structure and function.		
Session 4		DNA STRUCTURE AND CHROMOSOME		
		ORGANISATION		
		Lecture 7: Nucleotides and nucleic acids.		
		Lecture 8: DNA, chromosomes and DNA replication.		
		Work Session 3: Enzymes and enzyme regulation.		
Session 5		TRANSCRIPTION AND TRANSLATION		
		Lecture 9: What is a gene and transcription.		
		Lecture 10: The genetic code and translation.		
		Work Session 4: DNA structure.		
Session 6		INHERITANCE OF GENES		
		Lecture 11: Mitosis and meiosis, genotypes and		
		phenotypes.		
		Lecture 12: Genetic linkage and pedigree analysis.		
		Work Session5: Transcription and translation.		
Session 7		Review and 1 <sup>st</sup> formative assessment in session 1 to		
		session 6		

	Review in session 1 to session 6.				
	1 <sup>st</sup> formative assessment in session 1 to session 6 with				
	exception of lectures 11&12.				
Session 8	PROTEIN PROCESSING AND TARGETING				
	Lecture 13: Protein processing in cells; the secretory				
	pathway.				
	Lecture 14: Proteolytic processing within the secretory				
	pathway; collagen.				
	Work Session 6: Inheritance of genes (part 1).				
Session 9	MOLECULAR DIAGNOSIS				
	Lecture 15: Molecular diagnosis 1.				
	Lecture 16: Molecular diagnosis 2.				
	Work Session 6: Inheritance of genes (part 2).				
Session 10	MUTATIONS				
	Lecture 17: Mutagenesis and its effects.				
	Lecture 18: Detecting disease-causing mutations.				
	Work Session 9: Molecular diagnosis (part 1:Q1-6,8,10)				
Session 11	CHROMOSOMAL ABNORMALITIES				
	Lecture 19: Numerical chromosomal abnormalities.				
	Lecture 20: Structural chromosomal abnormalities.				
	Work Session 10: Mutations and their consequences.				
Session 12	MOLECULAR DIAGNOSIS & CHROMOSOMAL				
	ABNORMALITIES				
	Work Session 9: Molecular diagnosis (part 2: Q7, Q9)				
	Work Session 11: Chromosomal abnormalities				
Session 13	CASE STUDIES				
	Lecture 21: Case studies. ( ZA/ BM )				
	Work Session 13: case study 1.				
	Work Session 13: case study 2.				
Session 14	Review and 2 <sup>nd t</sup> formative assessment in session 6 to				
	session 13				
	Review in session 6 to session 13.				
	<sup>2nd</sup> formative assessment in session 6 to session 13.				

	First semester (S3)					
No.	Modules	Theoretical (hours)	Small groups(hours)	Practical (hours)	Total credits	
1	Musculo-Skeletal system	30	30	30	5	
2	Membrane and Receptors	30	30	-	4	
3	Cardiovascular System	30	30	30	5	
4	Mechanism Of Disease	30	30	-	4	
5	Clinical problem-solving 2	15	15	-	2	
6	Clinical skills foundation	-	-	30	1	
7	Baath crimes	30	-	-	2	
	Total				23	

# **1.2** THE CREDITS AND TOTAL CREDITS OF SECOND STAGE

# Introduction:

Semester three of the curriculum is integrated with S2 in one side and integrated information within the same semester. Its focus on the skeletal and muscle system in the body as a continuo to the tissue of the body in module (MSK) and concept of membrane of the cells and its receptors (MaR). In addition to learning the heart and blood circulation in module Cardiovascular (CVS), and the student start gaining information about diseases and how the people can get them in module called Mechanism of Disease (MoD). The clinical information will continue through the two modules the modules Clinical problem solving 2 (CPS2) and Clinical Skills Foundation 2 (CSF2).

The structure of the modules includes large group lecture which take 2 hours and small group session which take 2-3 hours.

Each session is prepared by teaching team three days before the session date and appaired in module internet classroom at least two days before the session time.

	Second semester (S4)					
No.	Modules	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits	
1	Urinary System	30	30	30	5	
2	Gastrointestinal System	30	30	30	5	
3	<b>Respiratory system</b>	30	30	30	5	
4	Health Psychology and diversity	30	30	-	4	
5	Clinical skills foundation	-	-	30	1	
	Total				20	

\* Total credits of second stage is 43

	First semester (S5)					
No.	Modules	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits	
1	Reproductive System	30	30	15	4.5	
2	Head and Neck	30	30	15	4.5	
3	Infection & Immunity	30	30	-	4	
4	Health and Disease in <sub>s</sub> Society	30	30	-	4	
5	Selective Modules	15	15	-	2	
6	<b>Clinical skills foundation</b>	-	-	30	1	
	Total				20	
	S	econd semester	(86)			
No.	Modules	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits	
1	Integrative	30	30	-	4	
2	Nervous system	30	30	30	5	
3	<b>Clinical Pharmacology</b>	30	30	-	4	
4	People Living with long term disease	-	30	60	4	
5	Clinical skills foundation	-	-	30	1	
6	Forensic Medicine	15	-	-	1	
7	Selective Modules	15	15	-	2	
	Total				21	

**1.3**THE CREDITS AND TOTAL CREDITS OF THIRD STAGE

\* Total Credits of Third Stage = 41

# Phase Two

# **1.4** THE CREDITS AND TOTAL CREDITS OF FOURTH STAGE

No.	Blocks	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits
1	MusculoSkeletal care	30	30	180	10
2	Cardio-respiratory care	30	30	180	10
3	Gastrointestinal System care	30	30	180	10
4	Endocrine and Renal care	30	30	180	10
5	<b>Clinical methods</b>	-	-	60	2
	Total				42

# **1.5** THE CREDITS AND TOTAL CREDITS OF FIFTH STAGE

No.	Blocks	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits
1	Special Sense	30	30	180	10
2	Child health	30	30	180	10
3	<b>Reproductive Health Care</b>	30	30	180	10
4	Peri-operative Care	30	30	180	10
5	<b>Research Project</b>	-	-	-	-
6	Medical ethics	30	-	-	2
	Total				42

# **1.6** THE CREDITS AND TOTAL CREDITS OF SIXTH STAGE

No.	Blocks	Theoretical (hours)	Small groups (hours)	Practical (hours)	Total credits
1	Hematology & Cancer Care	30	30	150	9
2	Acute care	30	30	150	9
3	Chronic care	30	30	150	9
4	Mental health care & neurology	30	30	150	9
5	Job shadow	-	-	300	10
	Total				46

<sup>•</sup> Total of phase two credits 132

# **2.0 TOTAL CREDITS FOR EACH STAGE**

phase	Stage	Credits
Phase one	First Stage (S1 & S2)	37
	Second Stage (S3 & S4)	43
	Third Stage (S5 & S6)	41
Phase two	Fourth Stage	42
	Fifth Stage	42
	Sixth Stage	46
	Total	251

		First year	%5
Phase one	%15	Second year	%5
		Third year	%5
	%85	Fourth year	%20
Phase two		Fifth year	%25
		Sixth year	%40

\*Note: Every 15 theoretical hours in lectures or small groups is equivalent to one unit. Every 30 practical hours in laboratories or clinical training is equivalent to one unit. The number of units for the first phase of study is 121 units, the number of units for the second phase of study is 130 units, and the total number of units for the six years is 251 units.

# "نماذج مما نفذ في كلية طب الزهراء لتنفيذ المنهج"

السيد عميد كلية الطب المحترم. السلام عليكم

# م/ تقرير عن قنوات التواصل مع الطلبة

اود اعلامكم باننا ومنذ اليوم الاول لتسجيل طلبة المرحلة الثانية افتتحنا قنوات بالبرنامج التلكرام وتم اضافة جميع الطلبة مع الاساتذة الذين يدرسون كل موديول. وتبين بعض الصور المرفقة من مضمون محادثات الطلبة والتدريسيين رقي هذه التجربة وعظم الاستفادة منها حيث يستمر الطلبة بينهم الى ساعات متاخرة بمناقشة مضامين المحاضرات ويتبادلون المعلومات بشكل مذهل وباشراف التدريسيين الذين يتدخلون كلما لزم الامر للتوضيح، وفي كثير من الاحيان يكتب الحيان يكم محاضرة التريسيين رقي هذه التجربة وعظم الاستفادة منها حيث المرفقة من مضمون محادثات الطلبة والتدريسيين رقي هذه التجربة وعظم الاستفادة منها حيث المرفقة من مضمون محادثات الطلبة والتدريسيين من مضامين المحاضرات ويتبادلون المعلومات يستمر الطلبة بينهم الى ساعات متاخرة بمناقشة مضامين المحاضرات ويتبادلون المعلومات الشكل مذهل وباشراف التدريسيين الذين يتدخلون كلما لزم الامر للتوضيح، وفي كثير من الاحيان يكتب الاستاذ سؤالا ليثير موضوع النقاش ضمن محاضرة الطلاب السابقة.

ونوصي بمفاتحة رئاسة الجامعة للاستفادة من تجربة كليتنا لما لها من اهمية كبيرة في تعليم الطلبة من جهة و توطين روح المحبة والتالف بين الطلبة والاساتذة.

والامر لكم مع التقدير.

المرفقات:

صور من محادثات التلكرام بين الاساتذة والطلبة

أ.م.د. حسين كاطع عبد السادة مسؤول الطور الدراسي الاول رئيس فرع الاحياء الامجهرية

السيد رئيس الجامعة المحترم م/ برنامج التواصل بين الاساتذة والطلبة

نود اعلامكم بانه ومنذ اليوم الأول لتطبيق المنهج التكاملي في كلية طب الزهراء شرعنا بانشاء مجاميع ببرنامج التلكرام لكل موديول يضم جميع الطلبة والاساتذة المتخصصون في الموديول، ونتابع باهتمام المناقشات الرائعة التي تتم بين الاساتذة والطلبة وبين الطلبة انفسهم يوميا و نرى بانها تجربة كبيرة يمكن الاستفادة منها وتعميمها لجميع كليات الجامعة لما لها من فائدة في تطوير التعليم في البلد واستزادة الطلبة من المعرفة من جهة و توطين روح المحبة والتألف بين الطلبة والاساتذة من جهة اخرى.

والامر لكم مع التقدير

## المرفقات:

- صور من مناقشات الطلبة والاساتذة في كروبات الموديو لات

## طلبة مع اساتذتهم في كلية طب الزهراء



### صورة من مناقشات الطلبة و الاساتذة لمادة

### **Clinical Problem Solving**

### **CPS Module**

69 members, 2 online

### **Pinned message**

The communication ساقوم بالتعريف بهذه القناة ستكون هذه القناة The communication

### October 15

### Musaab Ahmed Talib

we use DNase aerosol spray because bacterial persistence and the accumulation of viscous purulent secretions in the airways Purulent secretions contain high concentrations of extracellular DNA a viscous material released by leukocytes. 1:38 PM

### أحمد حربي شياع

Question. / student with cystic fibrosis uses a DNase aerosol spray. What is the origin of the target DNA?

Answer/ The traget DNA origin is from white blood cells that fight bacterial cell resulting died white blood cell and died bacterial cell so leading to produce this DNA. edited 2:03 PM

د. احمد جعفر هندي اطفال الفيحاء good. any other ideas? 5:28 PM

### https://t.me/medpdf

Telegram

Medical Book Collection. Free Download Medical Book. Specially For Undergraduate Medical Students.





# Zainab Hassan

@MedicalBooksStore 5:36 PM

د. احمد جعف هندي اطفال الفيجاء 🖱

Write a message...

### صورة من مناقشات الطلبة و الاساتذة لمادة

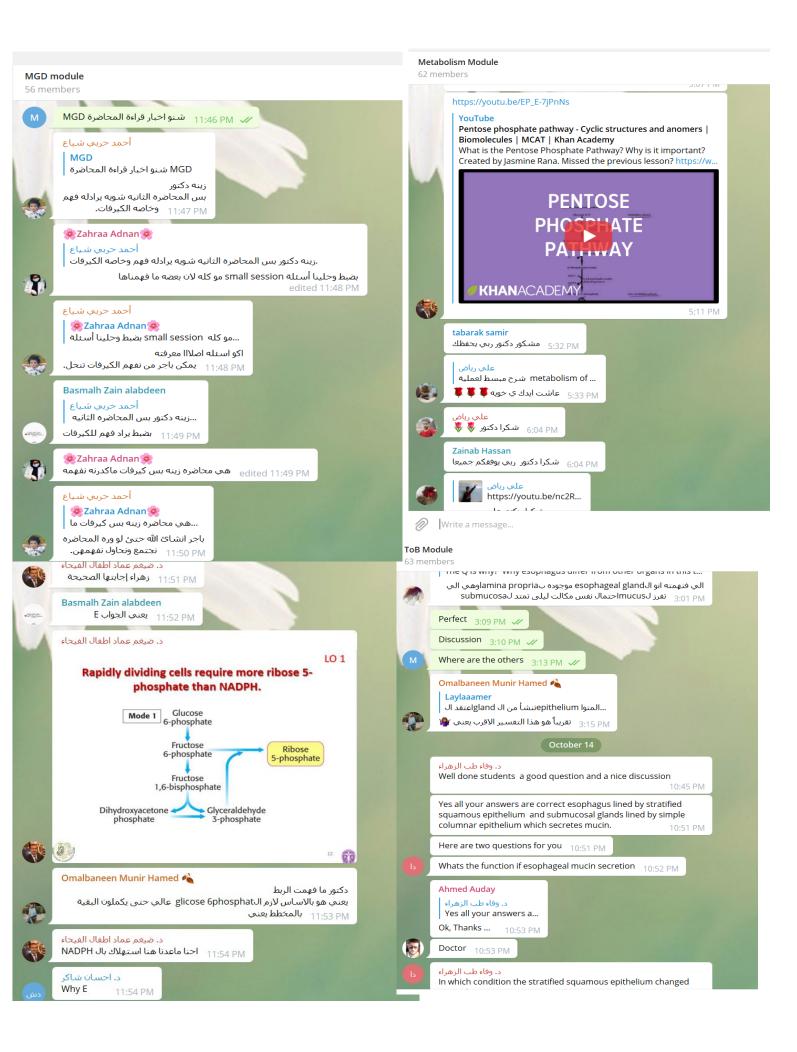
Health & Disease in Population

### H&D.P Module

#### 55 members



Write a message...



السيد عميد الكلية المحترم. السلام عليكم

# م/ الامتحانات الالكترونية

نود اعلامكم باننا شرعنا بعمل مجموعة من الامتحانات القصيرة الكترونيا من خلال برنامج ال Moodle الخاص بالجامعة ونرى انها تجربة فاعلة في تطوير التعليم العالي ونتمنى تعميمها والاستفادة منها في باقي كليات الجامعة واعتمادها كطريقة حديثة مساعدة في تقييم مستوى الطالب. ونرفق لجنابكم الكريم قسم من اعلانات تلك الامتحانات املين ان تنال رضاكم.

مع التقدير

اً د. محمود شاکر مسؤول برنامج Moodle

المرفقات:

- نماذج من الاعلان عن الامتحانات

السيد عميد كلية طب الزهراء المحترم.

السلام عليكم

م/ تقرير عن سير التدريسات في الكلية

شرعت اود ان ابين لجنابكم الكريم انه ومنذ اليوم الاول للدوام الرسمي الموافق 2-10-2018 كليتنا بالمحاضرات وكان اغلبها تعريفي بالبرنامج التكاملي والموديولات و ترابطها مع بعضها البعض وكيفية تنفيذ هذا البرنامج.

ثم جرت المحاضرات بسلاسة باسلوب المحاضرة 50 دقيقة واستراحة 10 دقائق ثم محاضرة ثانية والتي هي تكملة للمحاضرة الاولى ولمدة ساعة بعدها استراحة لمدة نصف ساعة. ثم ينتقل الطلبة الى المجاميع الصغيرة لحل الاسئلة والمناقشة بينهم وبوجود عدد من اساتذة المادة الذين يديرون الجلسات.

نرى ان الطلبة متكيفون بشكل مناسب على هذا التغير في المنهج وستترسخ الفكرة في اذهانهم مع مرور الوقت.

- يتم تنظيم المحاضرات من قبل جميع الكادر في الموديول الواحد اذا لا توجد محاضرة واحدة يعدها التدريسي بنفسه بل يجتمع جميع اعضاء الموديول لاعداد المحاضرة ثم يلقيها الاستاذ المحدد وبحضور عدد من تدريسي المادة الذين يحضرون قاعة المحاضرة مع الطلبة وكذلك بحضور مسؤول الطور الدراسي الاول. ( مرفق جانب منها).

- تم اعداد دليل للطالب ودليل اخر للتدريسي ويظم كل منهما تفاصيل ما يحتاجه الطالب والاستاذ اضافة الى استمارات تقويم ويوميات كل منهما.

- المحاضرات اعدت على شكل خاص لجميع موديولات الفصل من حيث الالوان وحجم الكتابة وغيرها اذ تم اعتماد فورمة خاصة للمرحلة وللفصل الدراسي واعط كل موديول علامة (Logo) لوكو خاص به (مرفق).

- تم اعتماد الامتحانات الالكترونية Formative quiz منذ الاسبوع الثاني باستخدام ال Moodle .

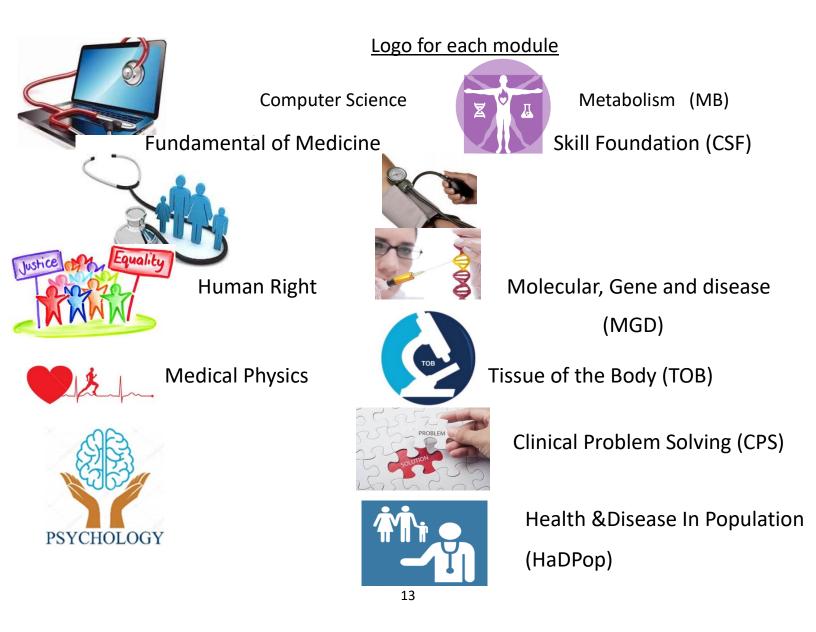
- تم اختيار مجموعة من المجاميع الصغيرة لتحضير سمنار لالقاء محاضرة للطلبة والتدريسيين واجريت التجربة الاولى لالقاء سمنرات الطلبة في يوم الخميس الموافق 18-10-2018 وكانت تجربة رائعة اذ ان للطلبة قدرة فائقة على الالقاء تحتاج الى اظهارها وستستمر هذه السمنرات بشكل شبه اسبوعي (صور من المحاضرة مرفق).



Small Group session



lecture preparation



#### Student Affairs 1

#### connecting...

Forwarded from Phase one coordinator

Good night dear students we need your feedback about the meeting today. 9:53 PM 🖌

#### محمد أمجد داود

Ok... Mmm .. For real , it was excellent and gave us Motivation to study and improve our skills ... Especially, when the doctor tell us the stories about Al-Kufa Medical Student , I feel that something arise and tell me ... So , are they beter than you!? Huh!? It gave me really motivation to improve my self 🙂 😎

edited 9:57 PM

10:00 PM

### نور علي محمد

### Phase one coordinator

Good night dear students we need your feedback about the me...

It was wonderful meeting, we enjoyed and knew alot of things from

visitors and second stage. Thank you our doctors 🎇 💙 We hope alot meeting like this in the future 🙏

### نور الهدى عبدالله حسن

### Phase one coordinator

Good night dear students we need your feedback about the me...

Good evening Dr. .. was a really wonderful meeting we have become a greater knowledge of the importance of changing the ways of education and I am about myself I feel proud now because I am a student in Al\_Zahraa medical college 10:01 PM

#### زين العابدين عبدالامير غالي

The meeting was wonderful and enjoyable because it has been shared many ideas and opinions as well as a lot of tips and motivations gave us great hope to succeed in our study in this system and thank you very much Professor Mohammed Al-Arzi and Dean of the of the Medical collage Al-Kufa and to attend you also and everyone who contributed to the arrangement of this fun stimulating meeting 10:02 PM

### **Student Affairs 1**

connecting...

### هُدي أحمد ماحد

### Phase one coordinator

Good night dear students we need your feedback about the me...

Good evening doc. thank you so much for giving us this opportunity to be there .. for me that was exactly what i needed to encourage myself and start to improve myself and my skills .. Now i really turst in al zahraa midical college and its system 💗

edited 10:10 PM

#### انفال محمد مجيد

### Phase one coordinator

Good night dear students we need your feedback about the me...

Good night Doctor, I am sorry because I could not attend today. I wished that I would not miss such a wonderful opportunity. But as As u know that I'm one from the residents of the departments, I returned to my family's home yesterday . I did not see your message until 10am. I hope that such meetings will be held so that we can develop ourselves. And improve our thinking and get like this beautiful chance as other students. 10:22 PM

#### محمد حسان عبود محسان

Good evening dr.

It was a very interesting and useful meeting, we learned how to develop ourselves and improve our skill and realized the goals of changing the curriculum and the importance of small groups in our study. Also , giving us motivation to compete with students of al-Kufa medical collage .. I am very proud I am a student in alzahraa medical collage and thank you for giving us this opportunity Thank you so much edited 10:23 PM

#### سارة علي عبد الرضا

### Phase one coordinator

Good night dear students we need your feedback about the me...

It was a very enjoyable meeting and we enjoyed it very much with the visitors and it was a very useful meeting 😇 🜷 10:28 PM

### **Student Affairs 2**

43 members, 2 online

علي رياض جان يوم كلش حلو ولطيف وهواي شغلات استفادينه من عدها واهم شي صارلنه دافع اقوه بهل النظام بعد ما سمعنه كم موقف من عميد كلية طب الكوفه حول امكانية الطلبه وقدراتهم وسيطرتهم ع الماده .



طبعا يوم لطيف جدا صح انحرمت من جمعه الاهل وجانو مسوين خوش سمج بس الله عوضني ب شـي احسـن ومن حضرت اليوم تغيرت كل أفكاري حول الدراسـه وحول النظام يوم جميل جدا يسـوه واحد طلع من البيت ع مو هيج شـي جميل انا جدا ممتنه ل ربي لان د.جواد و د.حسـين همه الي ويانه أشـخاص شعله من التحفيز والتغيير....يارب نكون عند حسـن ظنكم ونكدر نرد الكم جزء 10:20 PM

### Student Affairs 1

107 members, 2 online

opportunity to be there .. for me that was exactly what i needed to encourage myself and start to improve myself and my skills .. Now i really trust in al zahraa midical college and its system 🤎 edited 10:10 PM انفال محمد مجيد Phase one coordinator Good night dear students we need your feedback about the me... Good night Doctor, I am sorry because I could not attend today. I wished that I would not miss such a wonderful opportunity. But as As u know that I'm one from the residents of the departments, I returned to my family's home yesterday . I did not see your message until 10am. I hope that such meetings will be held so that we can develop ourselves. And improve our thinking and get like this beautiful chance as other students. 10:22 PM محمد حسان عبود محسان Good evening dr. It was a very interesting and useful meeting, we learned how to develop ourselves and improve our skill and realized the goals of changing the curriculum and the importance of small groups in our study. Also , giving us motivation to compete with students of al-Kufa medical collage .. I am very proud I am a student in alzahraa medical collage and thank you for giving us this opportunity Thank you so much edited 10:23 PM سارة على عبد الرضا Phase one coordinator Good night dear students we need your feedback about the me... It was a very enjoyable meeting and we enjoyed it very much with the visitors and it was a very useful meeting 😇 🌷 10:28 PM Mohammed Hassan and others please could you swap the information that you gain from the meeting today to your mates انفال محمد محبد how could not attend like 10:59 PM 🖌 Anfal dont worry you will understand what they got 11:00 PM 📈

السيد رئيس الجامعة المحترم م/ برنامج الامتحانات الالكترونية

نود اعلامكم باننا في كلية طب الزهراء شرعنا باستخدام نظام التقويم الالكتروني حيث تم عمل مجموعة من الامتحانات Formative quiz للطلبة عن طريق برنامج Moodle و تم الاعلان عن الامتحان الكترونيا ويستغرق اغلب الامتحانات من 3-10 دقائق ويتم باسلوب المحاولة الواحدة، وبالتقييم الالي. علما بان الامتحانات هذه مستمرة ولجميع الموديولات مع رضى كبير من قبل الطلبة على هذه التجربة.

ونتمنى ان يتم اعتماد هذا النوع من الامتحانات في جميع كليات الجامعة لما لها من اهمية في تطوير التعليم واساليب التقييم.

والامر لكم مع التقدير

## المرفقات:

- صور من الاعلان عن الامتحانات الالكترونية.

#### Consultation skill foundation (CSF) module Consultation skill foundation (CSF) module 68 members, 6 online 68 members, 5 online 5:15 PM ا 5:15 اي دكتور ليش الاخير لازم اتنينهن -Zainab Hassan 100 ط:28 PM اجالنه إشعار على مودل مكتوب بيه موعد امتحان فاطمة قاسم 0 🖿 💌 💐 🕾 🖸 .... 🗐 40% 🛢 5:12 PM 4:28 PM **Close event** vital signs بمحاضره edited 4:29 PM zain IQ 🕔 📾 🜑 🚥 ··· 🕕 හි . 🕆 📶 38% 💷 4:03 PM vital signs (Quiz closes) Start time 10/11/2018, 6:30:00 PM Contents Participants Grades > Course consultaion skills foundation course V Quiz 57% Notifications Default (1 ho... 🝷 auiz -🗸 vital signs < A 5:16 PM ما جاي اكدر افتح شـي وين المشـكله؟؟ A 5:17 PM VI ولمدة 10 دقائق 5:17 PM 0 📈 5:18 PM 🗸 د. هيثم طب الزهراء 4:34 PM سوف يتم ابلاغكم بالتفاصيل فاطمة قاسم Mohammad Basem 🔒 🕉 MGD الكوز يفتح مرة واحدة لكل طالب ولمدة 10 دقائق د. هيثم طب الزهراء سوف يتم ابلاغكم بالتفاصيل 5:18 PM يا صلا ما فتحت شـي د احاول من السـاعه ب ٥ D Write a message...