

UQUMED MBBS Program

Year 4 Study Guide



UQUMED Academic
Year (2019-2018)-(1440-1439)

4
Year
UQUMED
Curriculum Committee



This study guide was developed by the
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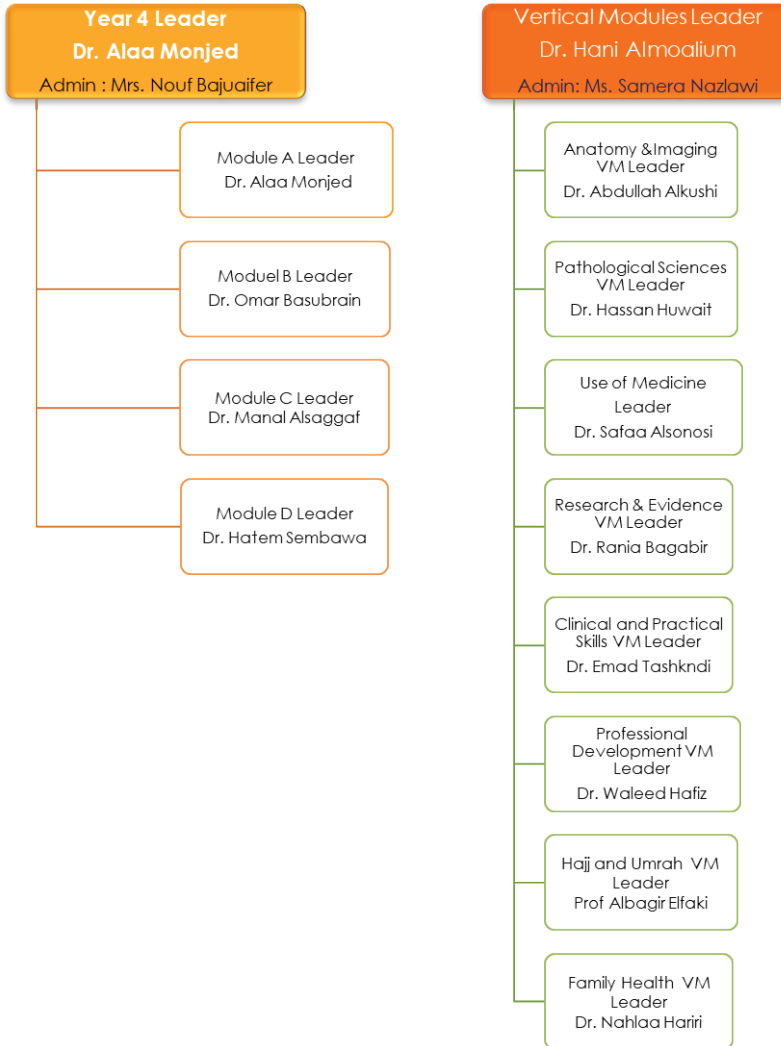
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📍 UQUMed building 3: Training and Medical Education
Medical Education Department



Administrative structure of Year 4





General Introduction of UQU MED Reformed MBBS Curriculum

The mission of the UQUMED MBBS program is "to provide medical education of the highest quality according to the national and international standards to foster the development of doctors who are able to meet and respond to the health needs and expectation of the Makkah and Saudi Community, and will be well prepared to enter postgraduate training to expand their competencies.

The reformed MBBS curriculum has started in September 2016 to fulfil the following principles:

- To develop a student-centred curriculum
- To develop an integrated curriculum; both in terms of content and learning experiences
- To develop a spiral curriculum; that builds on prior learning
- To develop a clinical-oriented curriculum; with a focus on the practice of medicine in all learning activities and early clinical exposure
- To ensure that graduates are scientifically literate
- To ensure that graduates fulfil the *Saudi MED* competencies
- To develop an assessment for learning approach

General Learning Outcomes of the Program

The learning outcomes for the UQUMED Program of Bachelor of Medicine and Surgery "MBBS" are designed to fulfil the Saudi Medical Education Directives Framework "Saudi MEDs", which is approved by the Deanery of Medical Colleges and the Ministry of Education date January 2015.

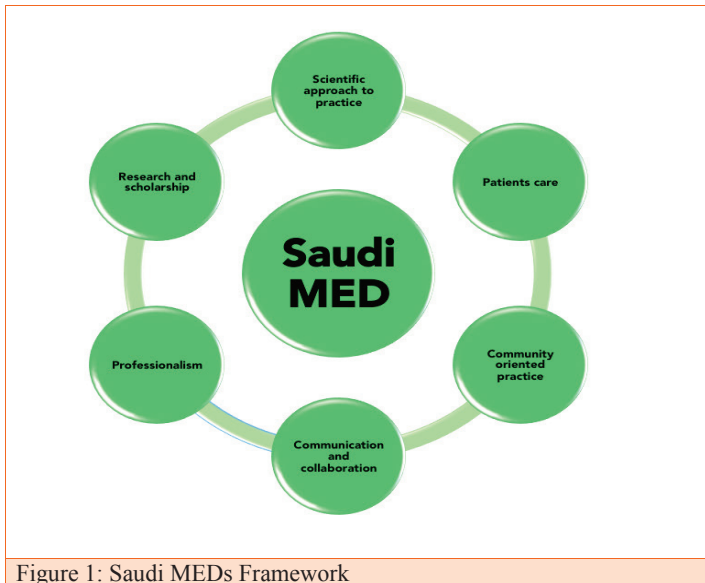


Figure 1: Saudi MEDs Framework

The following domains are the overall outcomes of the UQU Med MBBS program to be fulfilled by the graduates of the six-year program:

Domain I: Scientific Approach to Practice

1. Demonstrate a genuine understanding of, and an ability to integrate, the basic, clinical, behavioral and social sciences in medical practice
2. Assess evidence critically to deliver evidence-based health care
3. Consider how knowledge of disease pathology is applied in care and prevention

Domain II: Patient care

4. Demonstrate competence in a range of core clinical and practical skills essential for patient care
5. Demonstrate clinical reasoning, decision making, and problem solving skills
6. Diagnose and manage, under supervision, a range of life-threatening medical conditions
7. Diagnose and manage, under supervision, a range of common clinical problems
8. Employ a patient-centered approach of practice
9. Be able to assess patients' healthcare needs, taking into account their physical and mental health and personal and social circumstances, and apply their knowledge and skills to synthesize information from a variety of sources in order to reach the best available diagnosis and understanding of the patient's problem



Domain III: Community oriented practice

10. Demonstrate understanding of the healthcare system in Saudi Arabia
11. Advocate for, and contribute to, health promotion and disease prevention
12. Demonstrate and understanding of, and contribute effectively to, the challenge of pilgrims' welfare during Hajj and Umrah seasons

Domain IV: Communication and Collaboration

13. Effectively communicate with patients, colleagues, and other health professionals
14. Appreciate, and act effectively in, teamwork and inter-professional collaboration
15. Apply an understanding of basic medical informatics in healthcare systems
16. Demonstrate an understanding of cultural diversity, and recognize any possible cultural biases in healthcare

Domain V: Professionalism

17. Adhere to the professional attitudes and behaviors expected of physicians
18. Comply with the Islamic, legal, and ethical principles of professional practice
19. Be prepared to undertake personal and professional development

Domain VI: Research and scholarship

20. Demonstrate competence in basic research skills
21. Demonstrates a commitment to scholarly pursuits and continuing professional activity



General Structure and Outline of the Program:

UQUMED reformed MBBS is a six-year annual program, in addition to an internship year. The program consists of three phases

- Phase I: the Preparatory foundation (Year1)
- Phase II: the integrated clinical sciences and practice (Year 2-6)
- Phase III: the internship (Year 7)

The second phase of the MBBS program (integrated clinical sciences and practice phase) provides opportunities for students to develop competencies consistent with the *Saudi MED* competence-based framework via an integrated curriculum that encompasses both horizontal modules and longitudinal 'vertical' modules within a five-year learning program.

Each year of this phase consists of a number of multi-disciplinary horizontal modules that are delivered collaboratively by multiple academic departments within the Faculty of Medicine. In addition, there are eight vertical modules that run along the five-year program, from year-2 to year-6.

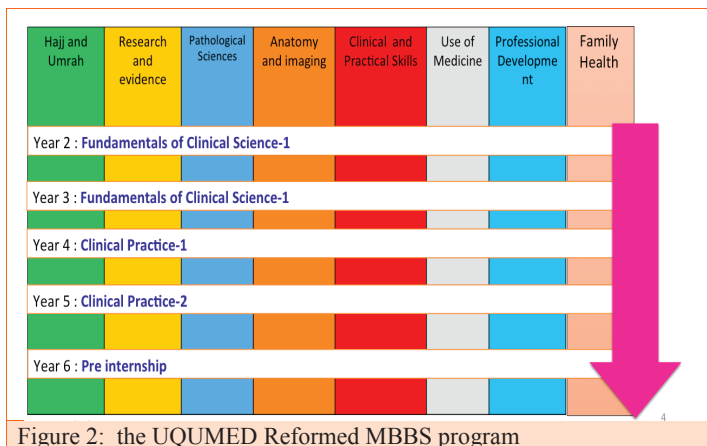


Figure 2: the UQUMED Reformed MBBS program



Year 4 (Clinical Practice-1)

Introduction

The theme of Year 4 is "**Integrated Clinical Care**". Workplace-based learning is the backbone of Year 4 and moving towards more workplace-based learning can be a challenging transition for medical students. To achieve this, much of the learning will take place in healthcare settings to ensure UQU medical students have exposure to patients with a wide range of healthcare needs including primary care and community care presentations, chronic disease management, acute illness presentations, and pre/peri and post-operative care. Year 4 is also a time when students will be both looking backwards: to their past learning, and understanding how theory and understanding of health and disease links to practice; and forwards: using the learning in this year as a key part of the journey to become competent interns.

Aim of Year 4:

Year 4 (Clinical Practice-1) aims to:

- Learn from healthcare experiences.
- Become skilled at interviewing and examining patients with a range of problems across the range of healthcare settings.
- Understand the integrated approach to diagnosing and managing patients' problems.
- Understand the healthcare system and how patients access care.
- Learn how to document information about patients and their care.

This will be achieved in Year 4 through:

- **Module A:** "Foundations of Clinical Practice" is an introduction and orientation module designed to assist in the transition into to workplace-based learning. This module also introduces students to the structure of the year, learning opportunities, how to maximize workplace-based learning, and evaluation of formative assessment opportunities.
- Workplace-based learning horizontal modules;
 - **Module B:** Cardiac, Respiratory, Endocrine and Diabetes presentations
 - **Module C:** Neurological, Kidneys and urinary tract, Hematological and Infectious presentations
 - **Module D:** Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery



- Vertical modules that are ongoing throughout the year and extend into the later years of the program.
- Maintenance of a portfolio and practical procedures card.
- Written and practical summative assessments; both mid of the year and end of the year comprehensive exams

Year 4 Learning outcomes:

By the end of Year 4, you should achieve these learning outcomes:

- Describe how a range of common diseases in adults present and are managed in both community and hospital settings.
- Utilize their basic sciences knowledge to understand the different pathophysiology and presentations of common diseases affecting adults.
- Demonstrate a wide range of clinical skills and be able to carry out basic practical procedures competently.
- Utilize the information gathered from patients; together with a developing understanding of medicine, to produce a differential diagnosis and problem list as well as to develop general management plans.
- Communicate effectively with patients and healthcare workers.
- Develop the skills as a workplace learner, who is able to make the most of experiential learning opportunities.
- Demonstrate an understanding of and be able to contribute effectively to the challenge of pilgrims' welfare and emergencies during Hajj and Umrah seasons.
- Demonstrate an understanding of cultural diversity, and recognize any possible cultural biases in healthcare.

Structure of Year 4

The year is organized in a series of horizontal modules over the course of the year:

- **Module A:** Foundations of Clinical Practice (2 weeks)
- **Module B:** Cardiac, Respiratory, Endocrine and Diabetes presentations (9 weeks)
- **Module C:** Neurological, Kidneys and urinary tract, Hematological and Infectious presentations (9 weeks)
- **Module D:** Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery (9 weeks)

After completing the 2 weeks of module A, students will be divided into 2 groups where they will rotate through modules B, C, and D every 9 weeks.



The structure of horizontal modules B, C, and D consists of:

- Week 1: core teaching week
- Week 2: preparation for practice week
- Week 3-8: clinical placement weeks
- Week 9: CIF (Consolidation, Integration, and Feedback) week

Alongside these modules, you also continue to address the Vertical Modules that began in year 2 and are ongoing throughout year 4 and extend into the later years of the program. Vertical Modules teaching takes place throughout the year and teaching is integrated with the activities in the horizontal modules.

1 st term															2 nd term														
Week No.															Week No.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Clinical Found (2C)		Cardiac, Respiratory diseases (9 W) (14C)								Neurological diseases, Rem.					Haematology Diseases, 10W (15 C)										Gastrointestinal and Hepatobiliary diseases (General Surgery: 9 W) (14C)				

Figure 3: Year 4 structure

	Male Students	Female Students
Academic week 1-2	Module A	Module A
Academic week 3-11	Module B	Module C
Academic week 12-22	Module D	Module B
Academic week 23-31	Module C	Module D

Figure 4: students' rotation of Year 4

Year 4 Vertical Modules:

VMs include the following:

1. Family Health
2. Hajj and Umrah
3. Research and Evidence
4. Anatomy and Imaging
5. Pathological Sciences
6. Use of Medicine
7. Clinical and Practical Skills
8. Professional Development



Methods of Teaching and Learning

The program aims to adopt student-centred learning approaches and uses many interactive learning strategies in addition to the interactive lectures.

In Year 4 of the MBBS program, students are exposed to various learning approaches that include large and small group teaching. Students are expected to be involved effectively in the learning process.

Students' learning opportunities;

- Workplace-based learning through clinical placements in hospitals and primary care centers
- Lectures
- Case-based Learning
- Interactive learning; task-based and team-based learning
- Tutorials and workshops
- Self-paced learning tasks and directed self-learning

Clinical Placement:

The reformed MBBS is mainly focusing on the early clinical exposure and patient-centre practice. Thus year 4 skeleton is workplace-based learning, which should be achieved through clinical placement.



A clinical placement is "any arrangement in which a medical student is present in an environment that provides healthcare or related services to patients or the public". Students can be actively involved in patient care or they can be observing health or social care processes

Throughout year 4, medical students will spend a total of 18 weeks in different health care settings including:

1. King Abdulallah Medical City, KAMC
2. Al-Noor Specialist Hospital
3. Hera'a General Hospital
4. King Abdulaziz Hospital



How could you be involved effectively in your learning?



5. King Faisal Hospital
6. Security Forces Hospital
7. Primary Care Centres

Assesment:

The nature of the reformed UQUMed MBBS curriculum in phase 2 (years 2-6) is an annual system. Successful completion of in-year and end of year exams, and compulsory course requirements is essential to allow progression to the next year of study. Since the curriculum is integrated vertically and horizontally, exams are integrated as well. The assessment system is consisted of formative and summative evaluation of students' progress

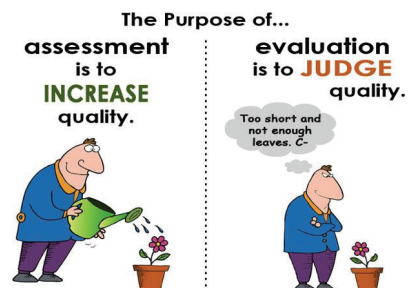
Formative assessment has no assigned marks. By the end of each module, there will be a compulsory in-course formative assessment. The objectives of these assessments are both to stimulate efficient learning and to provide students with the opportunity to experience assessments under examination conditions.

FORMATIVE ASSESSMENT	VERSUS	SUMMATIVE ASSESSMENT
Formative assessments occur during a learning activity		Summative assessments occur at the end of a learning activity
Aim to monitor student learning		Aim to evaluate student learning
Provide students with feedback		Yield a specific score or result
May occur several times during a course unit		May occur few times over the course of the academic year
Can use a wide range of question formats		Can only use a limited number of question formats

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Summative assessment in Year 4 consists of the following:

Portfolio	15%
Module Sign-off	5%
Summative Assessment 1 and 2	10%
Final Comprehensive	
1. Final Comprehensive Written Exam (2 Papers)	40%
2. Final Comprehensive Clinical OSCE	30%





Learning Resources:

The following learning resources are the general references for each subjects, however, may some leaning sessions have otherwise specific reference, the resources will be clearly stated.

Subjects	References
Internal Medicine	<p>Textbooks:</p> <ol style="list-style-type: none"> 1. Kumar and Clark's Clinical Medicine, 9th edition, 2016 2. Davidson's Principles and Practice of Medicine, 23rd edition, 2018 3. Clinical Examination by Nicholas Talley and Simon O'Connor, 8th edition, 2018 <p>Recommended References:</p> <ol style="list-style-type: none"> 1. Oxford Handbook of Clinical Medicine: 9th edition 2. Current Medical Diagnosis & Treatment 2018: by Maxine A. Papadakis, Stephen J. McPhee, Michael W. Rabow
General Surgery	<p>Textbooks:</p> <ol style="list-style-type: none"> 1. Browse's Introduction to the Symptoms & Signs of Surgical Disease, 5th edition, 2015 2. Lecture Notes: General Surgery, 12th edition, by Harold Ellis, Sir Roy Calne, Christopher Watson 3. The Mont Reid Surgical Handbook, 7th edition, 2017 <p>Recommended References:</p> <ol style="list-style-type: none"> 1. Essentials of General Surgery, by Peter F Lawrence, 5th edition, 2013 2. Current Diagnosis & Treatment: Surgery, 14th edition, 2015 3. Bailey & Love's Short Practice of Surgery, 27th edition, 2018
Biochemistry	<p>Textbook:</p> <p>1-Lippincott's Illustrated Reviews: Biochemistry 6th ed. (2014) By Pamela C Champe, Richard A Harvey, Denise R Ferrier.</p> <p>Recommended References:</p> <ol style="list-style-type: none"> 1- Harpers Illustrated Biochemistry 30 ed., 2015 Victor Rodwell ,David Bender , Kathleen M. Botham , Peter J. Kennelly , P. Anthony Weil 2-Clinical Biochemistry: An Illustrated Color Text, (5th e) by Allan Gaw , Michael J. Murphy , Robert A. Cowan and Denis St. J. O'Reilly (2013)



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Microbiology	<p><u>Textbooks:</u> 1- Medical Microbiology by David Greenwood et al., (2012), 18th edition 2-Human Virology by Leslie Collier, Jhon Oxford and Paul Kellam, 4th edition, Oxford University press 3-Medical Microbiology by atrick R. Murray, Ken S. Rosenthal, and Michael A. Pfaller, 8th Edition</p> <p><u>Recommended References:</u> 1- Mims' Medical Microbiology, By Richard Goering, Hazel Dockrell, Mark Zuckerman, Ivan Roitt and Peter L. Chiodini, 5th Edition 2- Infection and immunity by Jhon H. L. Playfair, 2nd edition</p>
Pathology	<p>Robbins Pathological Basis of Diseases, by Vinay Kumar et all, 9th edition, Saunders Ltd.</p>
Pharmacology	<p><u>Textbook:</u> Lippincott's Illustrated Reviews: Pharmacology, 6th edition (2015), Karen Whalen, ISBN-13: 978-1451191776 , ISBN-10: 1451191774</p> <p><u>Recommended References:</u> Basic and Clinical Pharmacology, 13 edition, (2014), Bertram Katzung & Anthony Trevor, Publisher: McGraw-Hill Medical, ISBN-13: 978-0071825054 , ISBN-10: 0071825053</p>
Research and Evidence	<p><u>Recommended References:</u> 1-Epidemiology: An Introduction Publication Date: June 4, 2012 ISBN-10: 0199754551 ISBN-13: 978-0199754557 Edition: 2 2-Epidemiology, Biostatistics and Preventive Medicine Publication Date: May 21, 2007 ISBN-10: 141603496X ISBN-13: 978-1416034964 Edition: 3 3-Maxey-Rosenau-Last Public Health and Preventive Medicine: Fifteenth Edition Publication Date: September 21, 2007 ISBN-10: 0071441980 ISBN-13: 978-0071441988 Edition: 15 4-Introduction To Public Health Publication Date: April 21, 2010 ISBN-10: 0763763810 ISBN-13: 978-0763763817 Edition: 3</p>
Professional Development	<p><u>Recommended References:</u> 1. Doing Right: A Practical Guide to Ethics for Medical Trainees and Physicians. By Philip C. Hebert. Oxford 2. Medical Ethics and Law: by Tony Hope and Julian Savulescu. Churchill Livingstone, Elsevier 3. How to Succeed at Medical School: An Essential Guide to Learning. Dason Evans, Jo Brown. Wiley, BMJbooks 2015. 4. Communication Skills for Medicine. By Margaret Lloyd, Robert Bor Churchill Livingstone, Elsevier</p>



Clinical Skills	Recommended References: <ol style="list-style-type: none">1. <i>Clinical Examination, 8th Edition A Systematic Guide to Physical Diagnosis</i> by Nicholas J. Talley and Simon O'Connor2. <i>Browse's Introduction to the Symptoms & Signs of Surgical Disease, 5th edition, 2015</i>3. <i>Skills for Communicating with Patients, 3rd Edition</i> by Jonathan Silverman, Suzanne Kurtz, Juliet Drape4. <i>Practical Guidelines for Infection Control in Health Care Facilities, World Health Organization.</i> http://www.wpro.who.int/publications/docs/practical_guidelines_infection_control.pdf
Year 4 Electronic References	<ol style="list-style-type: none">1. UpToDate, through the UQU library database2. Medscape eMedicine3. BMJ Best Practice



The first term (Male Students, Group 1)

Week No.	Date	Module	Themes
1	2/9/2018	Module A: Foundations of Clinical Practice	
2	9/9/2018		
3	16/9/2018	Module B: Cardiac, Respiratory, Endocrine and Diabetes presentations	Core Teaching week
4	23/9/2018		National Day Holiday
	24/9/2018		Preparation for Practice week
5	30/09/2018		Clinical Placement Weeks
6	7/10/2018		
7	14/10/2018		
8	21/10/2018		
9	28/10/2018		
10	4/11/2018		
11	11/11/2018		CIF week
12	18/11/2018	Module D: Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery	Core Teaching week
13	25/11/2018		Preparation for Practice week
14	2/12/2018		Clinical Placement Weeks
15	9/12/2018		
16	16/12/2018		
17	23/12/2018	First Mid-Year Comprehensive Exam	
18	30/12/2019	Mid-Year Holiday	



The second term (Male Students, Group 1)			
Week No.	Date	Module	Themes
1	6/1/2019	Module D: Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery	Clinical Placement Weeks
2	13/1/2019		
3	20/1/2019		
4	27/1/2019		CIF week
5	3/2/2019	Module C: Neurological, Kidneys and urinary tract, Hematological and Infectious presentations	Core Teaching week
6	10/2/2019		Preparation for Practice week
7	17/2/2019		Clinical Placement Weeks
8	24/2/2019		
9	3/3/2019		
10	10/3/2019		
11	17/3/2019		
12	24/3/2019		
13	31/3/2019		CIF week
14	7/4/2019	Self-Paced Revision Second Mid-Year Comprehensive Exam	
15	14/4/2019		
16	21/4/2019	FINAL Exams	
17	28/4/2019		
	5/5/2019	End of the 2 nd term and Summer Holiday	



The first term (Female Students, Group 2)

Week No.	Date	Module	Themes
1	2/9/2018	Module A: Foundations of Clinical Practice	
2	9/9/2018		
3	16/9/2018	Module C: Neurological, Kidneys and urinary tract, Hematological and Infectious presentations	Core Teaching week
4	23/9/2018		National Day Holiday
	24/9/2018		Preparation for Practice week
5	30/09/2018		Clinical Placement Weeks
6	7/10/2018		
7	14/10/2018		
8	21/10/2018		
9	28/10/2018		
10	4/11/2018		
11	11/11/2018		CIF week
12	18/11/2018	Module B: Cardiac, Respiratory, Endocrine and Diabetes presentations	Core Teaching week
13	25/11/2018		Preparation for Practice week
14	2/12/2018		Clinical Placement Weeks
15	9/12/2018		
16	16/12/2018		
17	23/12/2018	First Mid-Year Comprehensive Exam	
18	30/12/2019	Mid-Year Holiday	



The second term (Female Students, Group 2)			
Week No.	Date	Module	Themes
1	6/1/2019	Module B: Cardiac, Respiratory, Endocrine and Diabetes presentations	Clinical Placement Weeks
2	13/1/2019		
3	20/1/2019		
4	27/1/2019		CIF week
5	3/2/2019	Module D: Gastrointestinal and Hepatobiliary presentations, Fundamentals of General Surgery	Core Teaching week
6	10/2/2019		Preparation for Practice week
7	17/2/2019		Clinical Placement Weeks
8	24/2/2019		
9	3/3/2019		
10	10/3/2019		
11	17/3/2019		
12	24/3/2019		
13	31/3/2019		CIF week
14	7/4/2019	Self-Paced Revision Second Mid-Year Comprehensive Exam	
15	14/4/2019		
16	21/4/2019	FINAL Exams	
17	28/4/2019		
	5/5/2019	End of the 2 nd term and Summer Holiday	



Vertical Modules (VM)

The UQUMED is introducing new and exciting learning experiences through the concept of VM. There are eight-integrated vertical modules in phase II of the MBBS curriculum. These are:

1. Hajj and Umrah
2. Research and Evidence
3. Family Health
4. Anatomy and Imaging
5. Pathological Sciences
6. Use of Medicine
7. Clinical Skills
8. Professional Development

All Vertical modules except Family Health start from Year 2 and continue to Year 6. The Family Health VM starts from Year 3 and continues to Year 6.

VM Learning Outline

The integrated VM are taught and assessed *within the horizontal modules* and extend through all years of phase II of the program. The teaching of the following VM will be considered mainly during the same days of the horizontal modules:

- Anatomy and Imaging.
- Pathological Sciences.
- Use of Medicine.

The teaching in the following VM will be considered in specified learning interventions, mainly in Sunday of almost every week:

- Hajj and Umrah.
- Research and Evidence.
- Clinical Skills.
- Professional Development.

The learning outcomes of these VM are presented alongside the learning outcomes of the horizontal modules (HM) or the year learning outcomes. VM learning assessment is fully integrated into the formative and summative assessments of that module/year.



How the VMs are important in the Curriculum ?



VM Teaching methodologies:

The majority of VMs sessions are delivered in small group format:

- Small Group discussion or workshops
- Practical sessions
- Computer-assessed learning
- Self-direct learning (SDL) materials
- Clinical skills tutorials
- Hajj Camp

VM Assessment:

The teaching and assessment of these vertical modules are integrated within the horizontal modules. This module will be assessed in the structure of the year assessment in form of MCQs, OSCEs and portfolio tasks.

Outline of VM sessions:

Hajj and Umrah

- Part II: International Islamic Mission
- Part II: Pilgrims with special needs
- Old people needs during Hajj

Research and Evidence

- Diagnostic tests
- Research proposal design
- How to design a Questionnaire?

Professional Development

- Inter-professional communication skills
- Ethics and social media
- Capacity in medical care
- Terminally incurable diseases and end of life decisions
- Ethical issues in research II
- Capacity in medical care
- Racism and tolerance
- Medical professions
- Doctor and patients relationships



Clinical Skills

RRAPID	Special Exams	Procedures
Chest pain	Newly diagnosed DM	Arterial blood gases
Shortness of breath	Hernia exam	Peak flow meter
Weakness/stroke	DM foot and ulcers exam	Suturing and wound care
Hematuria	Scrotal exam	NG tube
Acute abdomen	Digital rectal exam	Scrubbing
Chronic liver disease complications	Neurological examination	Foley catheter
	Airway management	



