

UQUMED Year-3 Study Guide

College of Medicine Umm Al Qura University 2021-2022



This UQUMED year-3 curriculum study guide was developed by the College of Medicine, Umm AlQura University

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Program Overview

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

Knowledge and Understanding:

- Integrate basic, clinical, behavioral, and/or social sciences in medical practice.
- Advocate health promotion and disease prevention.
- Recognize cultural diversity and identify any possible cultural biases in healthcare.

Skills:

- Use clinical reasoning, decision making, and problem-solving skills in medical practice.
- Demonstrate the essential clinical skills.
- Manage patients with life-threatening medical conditions.
- Formulate and implement appropriate management plans for patients with common and important medical problems.
- Contribute effectively to the challenge of pilgrims' welfare during Hajj and Umrah seasons.
- Effectively communicate verbally and in writing with patients, their families, colleagues, and other health professionals.
- Practice teamwork and inter-professional collaboration.
- Critically appraise and demonstrate scholarly activities related to health sciences research.
- Demonstrate basic research skills.
- Apply medical informatics in healthcare system effectively.
- Practice evidence-based healthcare.

Values:

• Place patients' needs and safety at the center of the care process (Respect for patient dignity and autonomy, openness, truthfulness, caring, compassion).



- Adhere to the regulations and legal principes of Saudi healthcare system in the Kingdom (Social responsibility, accountability, teamwork, collegiality).
- Demonstrate professional attitudes, Islamic and ethical behaviors of physicians (Commitment, humility, integrity, honesty, reliability).

Demonstrate the capacity for self-reflection and professional development (Life-long learning, insight, evidence-based practice, ethical conduct).

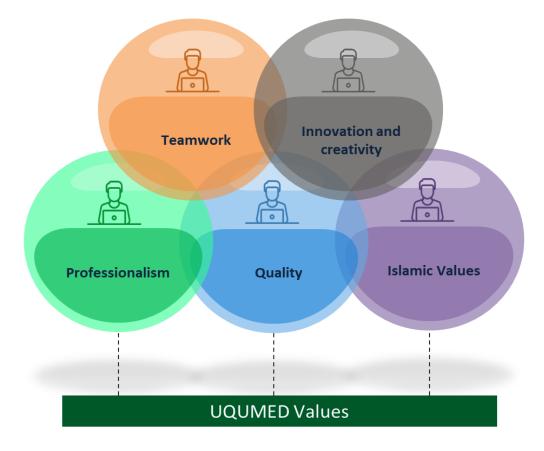
UQUMED Program Vision

To be one of the leading undergraduate programs in medicine and surgery across the region in medical education, research, and healthcare promotion.

UQUMED Program Mission

Graduating competent physicians to provide high quality comprehensive healthcare to the community and visitors.

UQUMED Values







Year 3 (Fundamentals of Clinical Science-2)

Like year 2, year 3 is delivered as a series of sequential, integrated, systems-based modules. Each module is based around a physiological system, provides integrated teaching across disciplines, is integrated with the learning within the vertical modules, and is designed to build on knowledge and skills learnt in previous modules.



The two years (Years 2 and 3) make up the Fundamentals of Clinical Science phase of the program, to provide an underpinning learning experience in basic clinical sciences and the foundations of learning in the vertical themes that run through all years of the curriculum.

The aim of the Fundamentals of Clinical Science level is to enable students to:

- Gain a firm understanding of the scientific knowledge and principles that are relevant to, and essential for, excellence in clinical practice
- Develop an understanding of science in the context of its application to clinical medicine, organized according to physiological and functional systems (e.g., Circulation and Breathing), rather than by academic disciplines (e.g., physiology, biochemistry and anatomy)
- Recognize the application of science to medicine and have the skills to appreciate methods of scientific research, thereby enabling students to appreciate and understand future advances in medicine.
- Develop the key skills required for data collection and analysis, information retrieval and use of electronic databases, problem solving, report writing and presentation of information and case reports.
- Have opportunities to develop an appreciation of the ethical, social and legal dimensions of medicine
- Have an opportunity for early patient contact and start to develop the foundations of the professional skills required for good patient care
- Start to develop an understanding of the value of health education, preventive medicine and the natural history of disease
- Demonstrate understanding of challenge of pilgrims' welfare and have opportunity to contribute to pilgrims' welfare
- Develop an understanding of the Islamic Culture and apply its principles in todays' life
- Gain a good foundation for learning in the later years of the program



The Fundamentals of Clinical Science level will be achieved in Year 3 through:

- A brief Introduction and Orientation session of the first week of Year 3. Students will be introduced to the structure of Year 3 and all required activities, assessment and evaluation measures.
- Systems-based learning in horizontal modules: Neuroscience and Behavior, Movement and Musculoskeletal, Endocrine Systems and Reproduction, Genetics, Development and Cancer modules
- Vertical modules that build on vertical module learning in year 3, are ongoing throughout the year and extend into the later years of the program
- A Selective module "Special Topics I" that provides students with the opportunity to broaden their intellectual experiences with their choice of a set of Special topics
- Continue the early clinical exposures with a structural learning opportunity in the Primary HealthCare Centers (PHC) and hospitals
- Regular opportunities for formative assessment and feedback
- Maintenance of a portfolio and practical procedures checklist
- Written and practical summative assessments: mid of the year and end of the year comprehensive assessments

Structure of Year 3

The year begins with general introduction and orientation session to Year 3, including information concerning the in-course and end of year assessments. Students will then complete the following horizontal modules over the course of the year:

- Neurosciences and Behavior (Module A)
- Movement and Musculoskeletal (Module B)
- Selective course "Special Topics I"
- Endocrine system and Reproduction (Module C)
- Genetics, Development and Cancer (Module D)





- The Selective-I module allows students to understand a medically- related topic in more depth. Examples include how to utilize the basic concept of pathological sciences; employing research techniques in order to find possible solutions to common health problems in Saudi Arabian community and the world; understanding multi-disciplinary team working; enhancing the creativity in solving problems.
- General University required subjects including Islamic Culture, Holy Qur'an, are also taught throughout Year 3. Students will also continue to complete the vertical modules, which are studied throughout Phase II of the MBBS program from Year 2 to Year 6.

The Horizontal Modules include the following:

- Neuroscience and Behaviour module is 8-week-module, taught during the first semester
- Movement and Musculoskeletal module is 8-week-module, taught during the first semester
- Endocrine Systems and Reproduction module is 7-week module, taught during the second semester
- Genetics, Development, and Cancer module is 5-week-module, taught during the second semester
- Special Topics module is 2-week module, taught during the second semester.

The Vertical Modules include the following:

- Hajj and Umrah
- Research and Evidence
- Anatomy and Imaging
- Pathological Sciences
- Use of Medicine
- Clinical skills
- Professional Development
- Family Health

Methods of Teaching and Learning

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



In Year 3 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;

- Lectures
- Case-Based Learning (CBL) and Task-Based Learning (TBL)
- Flipped classes
- Tutorials and workshops
- Learning projects
- Structural clinical attachment
- Self-paced learning tasks and directed self-learning

Year 3 Learning Project: "living the patient's experience"

Learning project is a required task that is developed by students to fulfil specific leaning outcomes related to Vertical Modules (VM) within the Horizontal Module (HM). Each student must complete three leaning projects, each of which is related to one of the main themes.

General description:

Year 3 Learning project "living the patient's experience" is a task that must be accomplished during a structural clinical attachment in one of the health facilities. Year 3 Leaning project enable students to live patient's experience while visiting hospitals/health care facilities to perform different procedures or attend different clinical activities, and develop students' communications skills with different hospital staff. It also will foster their sense of responsibility towards work and patients.

Aim of Year 3 Learning Project:

- Develop students' experiences and humanities regarding the suffer of patients
- Enhance students' appreciation of the importance of effective communication, leadership, and teamwork
- Develop students' critical thinking and evidence-based practice as they critic and suggest a development plans
- Reflects on current patient's safety measures and international guidelines.

Each Year 3 student is expected to complete 2 tasks of Learning Project "living the patient's experience", one per term. The students will attend two clinical attachments in specific department or centre at one of the healthcare facilities, such as Maternity Care,



Diabetics Centre, Pharmacy, Radiology Dep., Physical Therapy Dep., or Dialysis Centre). Then students must join the professional team to take care of patients and reflect on their given task. Each clinical attachment will last for one-two sessions.

There will be a written task and evaluation form to be completed by then end of each clinical attachment and compiled in student's portfolio

Clinical exposure

The reformed MBBS is mainly focusing on the early clinical exposure and patient-centre practice. Thus, from Year 3 of the program, students will continue developing their exposure to different healthcare facilities. They also will be introduced to the first time to the clinical care in the Primary HealthCare Centres.



Year 3 clinical exposures consists of the following

- Three sessions of structural clinical attachment to Primary HealthCare Centres
- Two sessions of structural attachment for other healthcare professional teams for Year 3 Learning Project "living the patient's experience"
- Simulated Diabetic Care Day
- Simulated Clinical skills sessions

Consolidation, Integration and Feedback (CIF) Week:

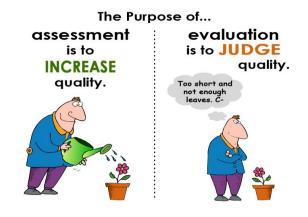
The Year 3 curriculum will include four CIF weeks that will take place at the end of the integrated modules. Some of the material during these weeks will be based around case studies or discussion. The four CIF weeks have been designed to allow:

- Revision and consolidation of key facts and concepts from the preceding module(s)
- Integration of learning during the preceding module with other horizontal modules and/or related vertical modules
- Opportunities for formative assessment of learning in the preceding module(s), and for following up their performance of portfolio
- Feedback relating to assessment and progress
- Students also present their leaning projects, which are related to one of the related vertical themes. By the end of Year 3, each student will participate within group of 4-6 students in delivering or presenting three leaning projects.

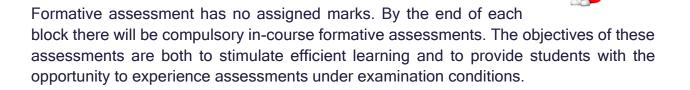


Assessment

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.



Assessment in Year 3 consists of the following:

| Portfolio | 20% |
|----------------------------|-----|
| Summative Assessment 1 & 2 | 10% |
| (Module A&B)& (Module C&D) | |
| Final Comprehensive | 70% |



"A portfolio is a collection of a student's work, which provides evidence of the achievement of knowledge, skills, appropriate attitudes and professional growth through a process of self- reflection over a



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

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, practical, and portfolio tasks.



Learning Resources:

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

| Subjects | References |
|--|---|
| physiology | Aging Mechanisms: Longevity, Metabolism and Brain Aging, Nozomu M. And Inhee M., Springer, Book, 2015 |
| Anatomy, Embryology, and Histology | Clinical Anatomy By Regions Or By System, By Richard S. SNELL, 9th Edition Snell, Clinical Neuroanatomy, 7th Ed Martin. Neuroanatomy Text And Atlas, 4th Ed Wheater's Functional Histology: A Text And Colour Atlas, By Young, B.; Lowe, J. S.; Stevens, A. And Heath, J. W, 6th Editions |
| Genetics | Emery's Elements Of Medical Genetics - Peter D. Turnpenny, Sian Ellard, Alan E. H. Emery, 2014 |
| Hematology and Immunology | Essential Of Clinical Immunology By Helen Chapel, Mansel Haeney, Siraj Misbah And Neil Snowden. 6th Edition, Chapter 17, PP; 318-320, Chapter 10, PP; 197-201 And Chapter 10, PP; 206-211 Hoffbrand's Essential Hematology Seventh Edition (2016) Page 81-86 Sadler TW. Langman's Medical Embryology 13th Ed. 2010: Lippincott. |
| Medicine | Essential Endocrinology And Diabetes (6th Revised Edition) Holt RIG And Hanley NA (2012) Wiley-Blackwell Primer On The Rheumatic Diseases, By John H. Kllippel, John H. Stone, Leslie J. Crofford. 13th Edition. Chapter 6, PP;114-140, Chapter11, PP; 224-240, And Chapter 30, PP; 303-360 Human Virology. A Text For Students Of Medicine, Dentistry, And Microbiology, By: Leslie Collier & John Oxford And Paul Kellam, 4th Edition, Chapter 6, Viruses And Cancer In Humans Kumar And Clarks Clinical Medicine, 8th Edition 2012. |
| Pathology | Robbins Pathological Basis Of Diseases By Vinay Kumar Et All., 9th Edition, Saunders Ltd |
| Pharmacology | Basic And Clinical Pharmacology (Katzung & Trevor), 13th Edition. Lippincott's Illustrated Reviews: Pharmacology, 2015, 6th Edition. |
| Biochemistry | Textbook: Clinical Chemistry: A Laboratory Perspectives, 1st Edition By Wendy Arnesin , Jean Brickell Textbook Of Biochemistry With Clinical Correlations, Thomas M. Devlin 7th Edition (2010), Wiley E-Text ISBN : 978-0-470-60976- |



| | Reference Book: Illustrated Clinical Biochemistry, 5th Edition By Allan Gaw, Michael J. Murphy, Rajeev Srivastava, Robert A. Cowan, And Denis St. J. O'Reilly. |
|-------------------|---|
| Family Health 3rd | Recommended book: |
| year | • Talley NJ,O'Connor S. Clinical examination:a sysrematic guide to physical |

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