



Programme and Course Specifications

Bachelor of Medicine, Bachelor of Surgery

(M.B, ChB)

University of Sirte – Faculty of Medicine

(2024-2029)

Contents:

Topic	Page No.	Topic	Page No.
Part One: Programme Specification		Course ILOCs Matrix	55
General Information	3	Physiology II	56
Programme Objectives	3	Course ILOCs Matrix	64
Academic Standards	4	Biochemistry and molecular biology II	65
Admission Requirements	4	Course ILOCs Matrix	73
Intending Learning Outcomes ILOs:	5	Histology and genetics II	74
Knowledge and Understanding	5	Course ILOCs Matrix	79
Intellectual Skills	6	Third Year:	80
Professional Skills	6	Pathology	80
General and Transferrable Skills	6	Course ILOCs Matrix	94
Programme Duration and Structure	7	Pharmacology	95
Programme Courses:	7	Course ILOCs Matrix	102
The Pre-medical Year	7	Microbiology	103
The First Medical Year	7	Course ILOCs Matrix	112
The Second Medical Year	8	Parasitology	113
The Third Medical Year	8	Course ILOCs Matrix	120
The Fourth Medical Year	9	Fourth Year:	121
The Fifth Medical Year	9	Obstetrics and Gynecology	121
The Internship	10	Course ILOCs Matrix	127
Teaching and Learning Methods	10	Public Health & Community Medicine	128
Evaluation Methods	10	Course ILOCs Matrix	133
Programme Continuation Requirements	11	Ophthalmology	135
Grades Categories	11	Course ILOCs Matrix	150
Programme Evaluation	11	Forensic Medicine & Toxicology	151
Programme References	12	Course ILOCs Matrix	158
Programme ILOCs Mapping Matrix	13	Clinical skills and simulation	159
Part Two: Course Specification:	14	Course ILOCs Matrix	165
First Year:	14	Radiology	166
Anatomy I	14	Course ILOCs Matrix	172
Course ILOCs Matrix	22	Fifth Year:	173
Physiology I	23	Medicine	173
Course ILOCs Matrix	30	Course ILOCs Matrix	185
Biochemistry and molecular biology I	31	Surgery	186
Course ILOCs Matrix	38	Course ILOCs Matrix	195
Histology and genetics I	40	Pediatrics	196
Second Year:	47	Course ILOCs Matrix	202
Anatomy II	47		
Elective subjects :		Behavioral science	203
		Information technology	208

Academic Standards and Requirements for M.B.B.Ch. Programme

General Information

Educational Institution	Sirte University
Faculty	Medicine
Programme Title	Medicine
Award	M.B.B.Ch. Bachelor of Medicine, Bachelor of Surgery
Programme Code	-----
Language	English
Departments Offering the Programme	Medicine Faculty Departments Sciences Faculty (for premedical year only)
Programme Coordinator	Dr. Ali Ismaeil
Date and Signature	September 2024

1. Programme Objectives:

An MBBCH (Bachelor of Medicine, Bachelor of Surgery) program is designed to equip students with the knowledge, skills, and attitudes essential for becoming competent and compassionate physicians, providing a solid foundation for medical graduates to practice effectively and contribute to the advancement of healthcare. The main objectives are:

Knowledge and Skills

- Basic and clinical Medical Sciences: A comprehensive understanding of foundational medical sciences, including anatomy, physiology, biochemistry, pathology, pharmacology, and microbiology, in addition to the clinical medical specialities.
- Clinical Skills: Proficiency in essential clinical skills such as history-taking, physical examination, diagnosis, and treatment planning.
- Procedural Skills: Competency in performing common medical procedures, including minor surgeries, injections, and diagnostic tests.
- Communication Skills: Effective communication with patients, families, healthcare professionals, and the public.
- Entrepreneurship, leadership and employment skills.

- **Problem-Solving and Critical Thinking:** The ability to diagnose and manage complex medical cases through problem-solving and critical thinking.

Professional and ethical values

- **Patient-Centered Care:** Prioritizing patient well-being and advocating for their best interests.
- **Ethical Conduct:** Adherence to medical ethics and professional standards, including confidentiality, autonomy, beneficence, non-maleficence, and justice.
- **Professionalism:** demonstrating professionalism, empathy, and compassion in interactions with patients, colleagues, and the community.
- **Lifelong Learning:** A commitment to continuous learning and professional development.

Systems-Based Practice

- **Healthcare Systems:** Understanding the organisation and functioning of healthcare systems, including public health, medical administration, and healthcare policy.
- **Quality Improvement:** Contributing to quality improvement initiatives within healthcare settings.
- **Inter-professional Collaboration:** Effectively working with other healthcare professionals, such as nurses, pharmacists, and allied health workers.

Research and Evidence-Based Medicine

- **Research Methods:** Acquiring basic research skills, including literature review, data analysis, and evidence-based practice.
- **Evidence-Based Practice:** Utilising evidence-based medicine to guide clinical decision-making.
- Improvements in research design, clinical measurements, and methods for analyzing data have led to a better understanding of how to produce valid clinical research.
- Graduating doctors with employment and entrepreneurship skills fit for local and international markets' requirements

2. Academic Standards:

The programme objectives are comparable with other national and international programmes. And the programme emphasizes on research attainment, awareness of the social and community circumstances of health care and health service administration. Furthermore, the objectives are adapted to meet the local circumstances.

3. Admission Requirements:

In order to be accepted, students should obtain an excellent grade ($\geq 85\%$) in the General Libyan Secondary Education Certificate and the medical Sciences Branch of the General Libyan Secondary Education Certificate, and have to pass a competition exam of general & medical knowledge set by the Faculty of Medicine. Taking in consideration any new instructions issued by the Ministry of high educations.

4. Intending Learning Outcomes (ILOs):

A. Knowledge and Understanding:

On successful completion of the programme, graduates will be able to:

- A1. Identify the normal structure and function of the human body systems at the level of molecules, biochemical reactions, cells, tissues and organs.
- A2. Identify the normal growth and development of the body systems.
- A3. Identify the abnormal structure, function, growth and development of the body tissues and their relevant disorders.
- A4. Describe the principles and the role of genetics in health and disease including the basics of gene therapy and genetic counseling.
- A5. Describe and count etiology, pathogenesis, clinical manifestations and prognosis of different diseases related to each body system, with emphasis on common diseases.
- A6. Classify microorganisms of medical importance with emphasis on: morphology, culture, antigenic structure, virulence, pathogenesis, clinical diseases they caused, diagnosis, treatment, prevention and control.
- A7. Describe the symptoms and signs, clinical manifestations, differential diagnosis, abnormal psychological responses of common mental and physical disorders.
- A8. Identify principles of prevention and management of the locally endemic diseases with emphasis on infective hepatitis and cutaneous Leishmaniasis, and COVID19.
- A9. State principles of early detection of malignancy and the screening methods.
- A10. Know the principles of early recognition and management of acute common medical and surgical emergencies.
- A11. Identify the common diagnostic procedures and the ability to select appropriate tests for detecting patients at risk for specific diseases.
- A12. Recognize the therapeutic principles for common health problems.
- A13. Recognize pharmacological principles of treatment, adverse drug reactions, drug interactions, and principles of safe prescribing.
- A14. State the principles of health education, basic biostatistics and clinical epidemiology
- A15. Identify the indications and the relative advantages and disadvantage of various management approaches to common clinical conditions.
- A16. Identify disability and its effect on the community and the principles of management including rehabilitation, institutional and community care.
- A17. Recognize the basic principles of health promotion and disease prevention including healthy life style (healthy nutrition, exercise, etc.), hygiene, immunization and procedures to avoid environmental and occupational hazards.
- A18. Recognize the systems of provision of health care, National Health Programmes.
- A19. State the different data resources and its use in practice and research.
- A20. Recognize the ethical and legal background of medical practice.
- A21. Define the scientific thinking and research methodologies in different medical sciences.
- A22. Apply the biostatistics tools and analytical methods to interpret scientific data.

A23. Identify the English language as needed for appropriate medical learning.

A24. Identify the local national health care system.

A25. Comprehensive understanding of fundamentals of employability and entrepreneurship

A26. Providing students with basic and clinical medical sciences knowledge that qualify them for lifelong medical education.

B. Intellectual Skills:

On successful completion of the programme, graduates will be able to:

B1. Connect basic science knowledge and skills to clinical problems.

B2. Conduct problem solving skills and decision making skills.

B3. Analyze history and examination findings to reach a differential diagnosis and create a plan of further management.

B4. Recognize critical illness and injury and be able to perform effective resuscitation.

B5. Interpret all laboratory and radiological results accurately.

B6. Analyze different malpractice problems.

B7. Criticize scientific papers effectively.

B8. Employment and entrepreneurship skills according to local and international standards

B9. Apply critical analysis and thinking skills regarding future profession

C. Professional and Practical Skills:

On successful completion of the programme, graduates will be able to:

C1. Distinguish between normal and abnormal tissues and organs in laboratory.

C2. Diagnose different physical and mental disorders.

C3. Perform common technical procedures relating to medical branches properly.

C4. Apply the essential basic and clinical skills and diagnostic and therapeutic intervention skills

C5. Perform a thorough clinical examination, with mental state assessment.

C6. Comply with infection control guidelines.

C7. Prescribe safely and effectively.

C8. Retain effective medical records.

C9. Applying employment and entrepreneurship skills

C10. Perform basic and clinical medical skills that qualify them for lifelong medical education.

D. General and Transferable Skills:

On successful completion of the programme, graduates will be able to:

D1. Communicate orally and by writing.

D2. Present scientific ideas in oral, written, numerical, graphical and visual presentations.

D3. Use appropriate IT skills in analyzing data, accessing information and preparing presentations.

D4. Work effectively and flexibly as a member of a healthcare team, with respect and valuing the roles of colleagues.

D5. Plan and manage their own work, including managing their own time and using different

appropriate resources (lectures, textbooks, websites and the scientific literature).

D6. Respect patient autonomy and adopt an empathetic approach to the patient/doctor relationship.

D7. Keep up to date with advances in medical practice and medical education for lifelong.

5. Programme Duration and Structure:

- **Duration:** 6 Academic Years
- **Structure:**
 - **Premedical Stage:** one year of courses studied at the college of Sciences.
 - **First Basic Sciences Stage:** 2 Years.
 - First Medical Year.
 - Second Medical Year.
 - **Second Basic Sciences Stage:** 1 Year.
 - Third Medical Year.
 - **Third Clinical Stage:** 2 Years.
 - Fourth Medical Year.
 - Fifth Medical Year.
 - **Fourth Internship Stage:** 1 year served as internal doctors in the Teaching Ibn Sina Hospital.

6. The programme courses:

The Pre-medical year:

Course Title	Lectures hrs.	Practical hrs.	Total hrs.
General Biology	75	50	125
General Chemistry	75	50	125
Organic Chemistry	75	50	125
Physics	50	50	100
Biostatistics	50	50	100
English Language	50	-	50

The First Medical Year:

Code No.	Course Title	Lectures hrs.	Practical hrs.	Tutorial hrs.	Total hrs.	Programme ILOs Covered
AN711	Anatomy I	150	50	50	250	A1,A2,A22,A23,B1,B2,C1, D1-D5
PH712	Physiology I	150	50	50	250	A1,A3, A22,A23,B1,B2,B5, C1,C3, D1-D5

BI713	BiochemistryI	100	30	20	150	A1, A3,A4, A22,A23,B1,B2,B5, C1,C3, D1-D5
HI714	Histology I	70	30	20	120	A1,A22,A23,B1,B2,C1,D1- D5

The total hours of study in the first year770

The Second Medical Year:

Code No.	Course Title	Lectures hrs.	Practical hrs.	Tutorial hrs.	Total hrs.	Programme ILOs Covered
AN721	Anatomy II	150	50	50	250	A1,A2,A22,A23,B1,B2,C1, D1-D5
PH722	Physiology II	150	50	50	250	A1,A3, A22,A23,B1,B2,B5, C1,C3, D1-D5
BI723	BiochemistryII	100	30	20	150	A1, A3,A4, A22,A23,B1,B2,B5, C1,C3, D1-D5
HI724	Histology II	70	30	20	120	A1,A22,A23,B1,B2,C1,D1- D5

The total hours of study in the second year770

The Third Medical Year:

Code No.	Course Title	Lectures hrs.	Practical hrs.	Tutorial hrs.	Total hrs.	Programme ILOs Covered
PA731	Pathology	180	60	60	300	A3, A4, A5, A6,A22,A23,B1,B2,B5, C1,D1-D7
PM732	Pharmacology	180	60	60	300	A4, A11, A12,A19, A22,A23,B1,B2,B5,C3, C7, D1-D7
MI733	Microbiology	120	60	30	210	A6, A8,A12,A22,A23, B1,B2,B5,C3,C6,D1-D7
PR734	Parasitology	70	30	20	120	A6,A8, A12,A22,A23, B1,B2,B5,C3,C6,D1-D7

The total hours of study in the third year930

The Fourth Medical Year:

Code No.	Course Title	Lectures hrs.	Practical hrs.	Tutorial hrs.	Total hrs.	Programme ILOs Covered
ME751	Medicine I	100	100	20	220	A5, A7, A10, A11, A12, A15, A19, A20, A21, A23, A24, B1-B7, C2-C8, D1-D7
GS752	Surgery I	100	100	20	220	A5, A7, A10, A11, A12, A15, A19, A20, A21, A23, A24, B1-B7, C2-C8, D1-D7
OG741	Obstetrics & Gynecology	100	100	20	220	A5, A7, A10, A11, A12, A13, A14, A15, A19, A20, A23, A24, B1-B7, C2-C8, D1-D7
CO742	Community Medicine	100	--	20	120	A5, A7, A8, A9, A10, A11, A12, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25 B1-B9, C2-C8, D1-D7
OP743	Ophthalmology	100	50	15	165	A5, A7, A10, A11, A12, A13, A14, A15, A19, A20, A23, A24, B1-B7, C2-C9, D1-D7
FO744	Forensic Medicine & Toxicology	100	50	10	160	A5, A7, A10, A11, A12, A15, A18, A19, A20, A23, A24, B1-B7, C2-C8, D1-D7

The total hours of study in the fourth year 1125

The Fifth Medical Year:

Code No.	Course Title	Lectures hrs.	Practical hrs.	Tutorial hrs.	Total hrs.	Programme ILOs Covered
ME751	Medicine II	200	150	40	390	A5, A7, A10, A11, A12, A15, A19, A20, A21, A22, A23, A24, B1-B7, C2-C8, D1-D7
GS752	Surgery II	200	150	40	390	A5, A7, A10, A11, A12, A15, A19, A20, A21, A22, A23, A24, B1-B7, C2-C8, D1-D7
PE753	Pediatrics	100	100	30	230	A5, A7, A10, A11, A12, A15, A19, A20, A21, A22, A23, A24, B1-B7, C2-C8, D1-D7

The total hours of study in the fifth year 1010

The internship: 12 months

Subjects	Duration	Total hrs.
Medicine	12 weeks/3 months , 42hrs/week	504
Surgery	12 weeks/3 months , 42hrs/week	504
Gynecology & Obstetrics	6 weeks/1 1/2months , 42hrs/week	252
Pediatrics	6 weeks/ 1 1/2months, 42hrs/week	252
Family & Community Medicine	4 weeks/ 1 month , 42hrs/week	168
Psychiatric medicine	2 weeks / 42hrs/week	84
Elective	4 weeks/1 month , 42hrs/week	168

7. Teaching and Learning Methods :

- Text books of the entire courses
- Course lecture notes by local teaching staff
- E-books on-line
- Google class room, Zoom,..etc.
- Video conference
- Simulator projects for lab training
- Seminars activity ,workshops, Case studies, Symposiums
- National and international conference activity
- Exchange Study groups
- Lectures: by applying modern teaching methods including: problem/group based/collaborative learning, flipped class room, and application of approaches such as : independent learning , problem solving , inquiry based/critical thinking .

8. Evaluation Methods:

Evaluator	Tool
Senior Students	Questionnaire
Alumni	Questionnaire
Stakeholders (Employers)	Questionnaire
External Evaluator(s), External Examiner(s)	Report

9. Programme Continuation Requirements:

Academic Year	Continuation requirement
First year	Passing all the premedical courses
Second year	Passing at least two courses of the first year
Third year	Passing all the courses of the second year
Fourth year	Passing all the courses of the third year
Fifth year	Passing all courses of the fourth year
Sixth year-internship	Passing all the courses of the fifth and fourth years

10. Grades Categories:

Average	Range
Excellent	$\geq 85\%$
Very good	$\geq 75\% - < 85\%$
Good	$\geq 65\% - < 75\%$
Pass*	$\geq 60\% - < 65\%$
Weak	$\geq 35\% - < 60\%$
Very Weak	$\geq 0\% - < 35\%$

Only in subjects of the premedical year, the pass grade begins at 50% *

11. Programme Evaluation:

Evaluator	Method
Labor market	Questionnaire
Final year students	Questionnaire
Graduates	Passing the exam
Academic Staff	Reports
External Evaluator	Opinion poll and follow up
Others	

12. Learning Resources, Facilities and Equipment:

Learning resources:	Comment
Textbooks	Shortage in textbooks especially for basic sciences
Medical Journals and Periods	Partially available
Web-based Resources	Partially available
Facilities and Equipment:	Comment
Class rooms	Need big halls for lecturing
Laboratories	Need to be work appropriately
Library	Need updating

13. References

- World Federation of Medical Education: <https://wfme.org>
- Quality Assurance Agency of UK: <https://www.qaa.ac.uk>
- Some Arabic Medical Schools:
 - Ain Shams University: <https://med.asu.edu.eg>
 - Cairo University: <https://cu.edu.eg>
 - King Saud University: <https://medicine.ksu.edu.sa>

Comments: Teaching staff file attached.

