Program Specifications

A. Basic information

Program title: Medical Bachelor and Bachelor of Chirurgiae

(Surgery) (MBBCh)

Program type: Single program.

Faculty: Faculty of Medicine

Departments: 16 departments which are, Anatomy, Physiology,

Histology,

Biochemistry, Pathology, Pharmacology, Microbiology,

Parasitology, Public health and Community Medicine,

Pediatrics, Obstetrics and Gynecology, Ophthalmology,

Otolaryngology, Internal Medicine and Surgery.

Coordinator:

External evaluators: Prof. Dawlat Salem

Date of program specifications approval: 2008

B. Professional information

1- Program aims:

The academic programs offered by the Faculty of Medicine, Fayoum University, are aiming to:

- Provide medical students with the highest possible standards and relevant medical education; Enable our graduates to become competent physicians equipped with the modern medical knowledge, master the art of critical thinking and decision making; become capable of engaging in the practice of medicine as competent professionals who respect ethical values.

2. Intended Learning Outcomes (ILOs)

A. Knowledge and Understanding:

Graduates should demonstrate knowledge and understanding of:

- **A.**\.Normal human body:
 - **A.**1,1. Normal structure and function of human body and each of its major systems at molecular, cellular, biochemical & organ levels.
 - **A.**1.7. Molecular, biochemical, and cellular mechanisms which are important in maintaining the body homeostasis.
 - A. V. T. Normal growth and development of human body including main developmental changes and the effect of growth, development and aging on the individual & his family.
 - **A.**1,1. Principles of normal and abnormal human behaviors.
- A. T. Altered growth, development, structure and function of the body and its major systems that are seen in various diseases and conditions.
- A.r. Principles of genetics and its role in health and disease, as well as basics of gene therapy and genetic counseling.
- A. Incidence, etiology, risk factors, natural history, pathogenesis, clinical features, differential diagnosis and complications of common and life-threatening illnesses affecting the body and each of its major organ systems, presenting throughout the age spectrum.
- **A.**•.Principles of management of common diseases including:
 - **A.**•, \. The determinants of health, principles of disease prevention and early detection of common community health problems.
 - A.o.y. Epidemiological principles of demography and biological variability
 - A.o., Principles of disease surveillance and screening
 - A.o. . Control of communicable diseases and health promotion
 - **A.º,º.** Population-based approaches to health care services and their role in improving medical practice
 - **A.**\,\\. Principles of infection control in hospitals and within community

- **A.**\.Principles, indications, advantages, disadvantages of various management strategies applied to common diseases including:
 - **A.**Y, \ . Pharmacological basis of drugs including drug effects, pharmacokinetics, dosage, drug-drug interactions and adverse reactions.
 - **A.**Y,Y. Non invasive and invasive available intervention.
 - **A.**Y,**Y.** Basic pre- and post operative care.
 - A.Y,£. Pain relief and palliative care
- **A.**Y.Basis and interpretation of common diagnostic investigations e.g., lab, radiological and pathological (stressing on their role in management plans).
- **A.**^.Nature of disability, its impact on community and principles of management (including rehabilitation, institutional and community care).
- **A.**9. Basics of biostatistics
- **A.** · · · Principles of prevention and management of locally endemic diseases (stressing on infective hepatitis, schistosomiasis and tuberculosis).
- **A.**\\.Diagnosis and management of medical and surgical acute illnesses and emergencies
- **A.** \ \ \ . Principles and management of traumatic conditions (stressing on severely and poly-traumatized cases).
- A.\\\. Principles of toxicology
- A. \ : Principles of research methodology and critical evaluation of evidence
- **A.** \ . Basic computer knowledge (needed to support literature retrieval and learning).
- A. \ \ . English language (needed for learning and communication).

A. 17. Basics of ethics, medico-legal aspects of health problems, malpractice and common medical errors

B. Intellectual Skills:

- **B.**\. Integrate basic anatomical, pathological, biochemical and physiological facts with clinical data.
- **B.**Y. Reason deductively in solving clinical problems:
 - **B.2.1**. Recognize, define and prioritize problems.
 - **B.2.2.**Interpret, analyzes, and evaluates information objectively, recognizing its limitations.
- **B.** Integrate the results of history, physical, pathological and laboratory test findings into a meaningful diagnostic formulation. (define problem and formulate differential diagnosis)
- **B.**: Use personal judgment for analytical and critical problem solving and seek out information.
- **B.**•.Construct appropriate management strategies (both diagnostic and therapeutic) for patients with common diseases, both acute and chronic, including medical, psychiatric, and surgical conditions.
- **B.**\.Design an initial course of management for stabilization of patients with serious illnesses.
- **B.** Classify factors that place individuals at risk for disease or injury, to determine strategies for appropriate response.
- **B.**^.Retrieve, analyze, and synthesize relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (Evidence-Based Medicine).
- **B.**4. Recognize and cope with uncertainty by:
 - **B.9.1**. Accepting that uncertainty is unavoidable in the practice of medicine.
 - **B.9.2.**Using appropriate cognitive strategies to deal with uncertainty when it arises.

- **B.** \cdot Demonstrate insight into research and scientific method through:
 - **B.10.1.** Formulating research questions that are pertinent to medicine.
 - **B.10.2.**Recognition of the importance of precision in collecting, analyzing and interpreting medical data.

C. Practical and Professional skills:

C.1. Practical Skills:

- Clinical Skills & Competencies acquired during the undergraduate years:
 - **C.1.1.** Take and record a structured, patient centered history.
 - **C.1.2.** Perform full physical examination appropriate to the age, gender, acute and chronic clinical conditions, and culturally sensitive.
 - **C.1.3.** Assess the mental state of the patient.
 - C.1.4. Formulate a management plan for common diseases.
 - **C.1.5.** Work out drug dosage based on patient's weight, age and health condition.
 - **C.1.6.** Write safe prescriptions of different types of drugs.
 - **C.1.7.** Perform required laboratory work as an integral part of their practical training in some pre-clinical departments
 - **C.1.8.** Careful use & handling of some instruments, devices, microscopes, etc.
- Procedures and Technical skills acquired during undergraduate and house officer training:
 - **C.1.9.** Perform venepuncture and collect blood samples.

- **C.1.10.** Insert a cannula into peripheral veins.
- **C.1.11.** Give intramuscular, subcutaneous and intravenous injections.
- **C.1.12.** Perform suturing of superficial wounds.
- **C.1.13.** Demonstrate competency in cardiopulmonary resuscitation and basic life-support.
- **C.1.14.** Administer compulsory childhood vaccines.
- **C.1.15.** Perform basic bedside laboratory tests.
- **C.1.16.** Perform and interpret ECG.
- **C.1.17.** Administer basic oxygen therapy.
- **C.1.18.** Use a nebuliser for administration of inhalation therapy.
- **C.1.19.** Insert a nasogastric tube.
- **C.1.20.** Perform bladder catheterization.
- C.1.21. Perform procedure of normal labor.
- **C.1.22** Adopt suitable measures for infection control.

C.2. Professional Attitude and Behavioral skills:

- Graduates should be able to:
 - **C.2.1.** Adopt an empathic and holistic approach to the patients and their problems.
 - **C.2.2.** Respect patients' rights and involve them and /or their caretakers in management decisions.

- **C.2.3.** Understand and comply with the different cultural believes and values in the community they serve.
- **C.2.4.** Recognize the important role played by other health care professions in patients' management.
- **C.2.5.** Be aware and understand the national code of ethics.
- **C.2.6.** Counsel patients suffering from complicated or terminal illness.

• House Officers at the end of the year should be able to:

- **C.2.7.** Ensure confidentiality and privacy of patients' information.
- **C.2.8.** Treat all patients equally, and avoid stigmatizing any category regardless of believes, culture, and behaviors.
- **C.2.9.**Demonstrate respect and work cooperatively with other health care professions for effective patient management.
- **C.2.10.** Be willing to share in all types of inter-professional activities including collaborative and shared learning.

D. General & Transferable and Communication Skills:

D.1. General & Transferable skills

- Graduates at graduation will be able to:
 - **D.**\,\\. Adopt the principles of lifelong learning.
 - **D.**\,\\\. Use computers efficiently.
 - **D.1**, **r.** Retrieve, manage, and manipulate information by all means, including electronically.

- **D.**1,•. Communicate ideas and arguments effectively.
- **D.1**, ... Effectively manages time and resources and set priorities.
- **D.**\,\\. Work effectively within a team.
- **D.**\.\.\. Analyze and use numerical data (Use simple statistical methods).

• Graduates at the end of the house officer year will be able:

- **D.**1,4. Use Evidence Based Medicine in management decisions.
- **D.**1,1... Work effectively within the health care team.
- **D.**). Solve problems related to patients, work management, and among colleagues.
- **D.**1,17. Cope with a changing work environment.

D.2. Communication Skills:

Graduates as well as house officers should be able to:

- **D.2.1.** Communicate clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions.
- **D.2.2.** Communicate effectively with individuals regardless of their social, cultural or ethnic backgrounds, or their disabilities.
- **D.2.3.** Cope with situations where communication is difficult

including breaking bad news.

- **D.2.4.** Show compassion to the patients and their relatives in situations of stress and grief.
- **D.2.5.** Honor and respect patients and their relatives, superiors, colleagues and any other members of the health profession

3. Academic standards:

- Fayoum Faculty of Medicine uses the National Academic Reference Standards (NARS) set by the National Quality Assurance and Accreditation Committee in partnership with the medical sector committee of the Supreme Council of Egyptian Universities.
- These standards represent the minimum academic quality requirements which the government regards as appropriate and reasonable in order to protect the interests of the students, the reputation of individual faculties, and the community as a whole.

External references for standards (Benchmarks):

General standards of the program (include several knowledge and understanding, intellectual skills, professional and practical skills, general and transferable skills) are relevant to the practice of medicine and are equal to the threshold of the National Academic Reference Standards. The attributes of the Typical Graduate set by the medical sector committee correlate with the faculty program aims. The academic standards are in compliance with the faculty mission The ILOs (include Principles of management of common diseases, solving clinical problems, comply with the different cultural believes and values, understand the national code of ethics), all previous items correlate with the goals of undergraduate medical education set out by medical sector committee, Moreover,

- 1- Objectives and goals in current program are "comparable" with other national and international program.
- 2- Objectives have been "tailored" to local circumstances

3- Research attainment, awareness of the social and community contexts of health care and health service administration are highlighted in the current program.

5. Curriculum structure and contents:

A- Program duration: 6 years

B- Program structure:

1- Basic science stage: 3 years.

2- Clinical stage: 3 years.

C- Total number of hours per week: 36 hours

1- Lectures: 18 hours per week

Y- Lab. Training / Clinical small group teaching: 18 hours per week

D- All courses are compulsory.

Credit hours is <u>not currently available</u> for undergraduate medical education

6. Program courses:

Program courses and regulations for program completion:

1 - First year

code	Course title	Hours per w	veek	Total hour	Program ILO covered
		Lectures	Lab	S	
1111	Anatomy and Embryology	4	4	240	A.1.1, A.1.3, A.2, A.3, B.1, C.1.8, D.1.4, D.1.5, D.1.6, D.1.7
1112	Histology	2	2	120	A.1.1, A.2, A.5.1, C.1.8, D.1.4, D.1.5, D.1.6, D.1.7
1113- 	Human Physiology	5	2	210	A.1.1,A.1.2,A.2,B.1,C.1.8,D.1. 4,D.1.5,D.1.6,D.1.7,
1114-	Medical Biochemistry	3	2	150	A.1.1,A.1.2,A.2,A.3,A.5.1, A.7, B.1,C.1.7,C.1.8,C.1.15,D.1.4, D.1.5,D.1.6,D.1.7
1105- 	English Language	2	-	60	A.16, D.1.5, D.1.6,D.1.7
1106	Computer Sciences	1	1	60	A.14, D.1.2, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7

Duration: 30 weeks

2 – Second year:

code	code Course title		Hours per week		Program ILO covered
		Lectures	Lab		
1111	Anatomy and Embryology	4	4	240	A.1.1, A.1.3, A.2, A.3, B.1,C.1.8, D.1.4, D.1.5, D.1.6, D.1.7
1112	Histology	2	2	120	A.1.1, A.2, A.5.1, C.1.8, D.1.4, D.1.5, D.1.6, D.1.7
1113	Human Physiology	5	2	210	A.1.1,A.1.2,A.2,B.1,C.1.8, D.1.4,D.1.5,D.1.6,D.1.7,
1114	Medical Biochemistry	3	2	150	A.1.1,A.1.2,A.2,A.5.1, A.7, B.1,C.1.7,C.1.8,C.1.15,D.1.4, D.1.5,D.1.6,D.1.7
1205	Behavioral Science and Ethics	1	-	30	C.2.2,C.2.3,C.2.4,C.2.5,C.2.6,C.2.7,C. 2.8,C.2.9C.2.10,D.1.1D.1.5,D.1.6,D.1. 7,D.1.12,D.2.1,D.2.2,D.2.3,D.2.4,D.2. 5

* Duration: **30 weeks**

3- Third Year:

code	Course title	Hours per wee	ek	Total hours	Program ILO covered
		Lectures	Lab		
1301	Pathology	4	4	240	A.2,A.3,A.4,A.5.1,A.5.4,A.7, B.1, C.1.7, C.1.8, D.1.4, D.1.5, D.1.6,D.1.7
1302	Pharmacology	4	2	210	A.2, A.5.4, A.6.1, A.6.2, A.6.4, C.1.5, C.1.6, C.1.8, D.1.4, D.1.5, D.1.6, D.1.7
1303	Microbiology and Immunology	3	2	150	A.2, A.3, A.4, A.5.1, A.5.4, A.5.6, A.6.2, A.7, A. 10, C.1.7, C.1.8, C.1.9, C.1.15, C.1.22, C.2.9, C.2.10, D.1.4, D.1.5, D.1.6, D.1.7
1304	Medical Parasitology	3	2	120	A.2, A.4, A.5.1,A.5.4, A.5.6,A.6.2, A.7, C.1.7,C.1.8,C.1.15,D.1.4,D.1.5 ,D.1.6,D.1.7

* Duration: 30 weeks

4- Fourth Year:

code	Course title	Hours per week		Total weeks for	Program ILO covered
		Lecture s	Clinical rounds	clinical rounds	
2404	Community Medicine	4	2	2	A.2, A.3, A.4, A.5.1, A.5.2, A.5.3, A.5.4, A.5.5, A.5.6, A.6.2, A.8, A.9,A.10,A.11,A.14,B.9.1,B.9.2,B. 10.1,B.10.2,C.1.4,C.1.7,C.1.14,C. 1.22,C.2.3,C.2.9,C.2.10,D.1.1,D.1 .3,D.1.4,D.1.5,D.1.6,D.1.7,D.1.8, D.1.9,D.1.10,D.1.11,D.1.12,D.1.1 3,D.1.14,D.2.1,D.2.2,D.2.3,D.2.4, D.2.5
2403	Forensic Medicine & Toxicology	2-3	2 (lab)	2	A.2, A.6.2, A.7, A.11, A.13, B.1, B.2, B.2.1, B.2.2, B.3,B.4, B.5, B.6, B.7, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.5, C.1.6, C.1.8, C.1.22, C.2.1, C.2.6, C.2.9, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,
2401	Ophthalmolog y	2	18	8	A.2, A.4, A.5.1, A.5.4, A.5.6, A.6.2, A.6.3, A.7, A.8, A.11, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.1.10, C.1.11, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,
2402	E.N.T	2	18	4	A.2, A.4, A.5.1, A.5.4, A.5.6, A.6.2, A.6.3, A.7, A.8, A.11, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.1.9, C.1.10, C.1.11, C.1.19, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,

* Duration: **32 weeks.**

5- Fifth Year:

	Course title	Hours per week		Total	program ILO covered
code		Lectures	Clinical rounds	weeks for clinical rounds	program 120 covered
2514	General Surgery & its specialties	4	18	8	A.2, A.4, A.5.1, A.5.4, A.5.6, A.6.2, A.6.3, A.6.4, A.7, A.8, A.11, A.12, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.19, C.1.10, C.1.11,C.1.12, C.1.17, C.1.19, C.1.20, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,
2501	Obstetrics & Gynecology	4	18	14	A.2, A.3, A.4, A.5.1, A.5.4, A.5.5, A.5.6, A.6.2, A.6.3, A.7, A.8, A.11, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.1.9, C.1.10, C.1.11,C.1.12, C.1.17, C.1.19, C.1.20, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,
2502	Pediatrics	3	18	14	A.1.3, A.2, A.3, A.4, A.5.1, A.5.4, A.5.5, A.5.6, A.6.2, A.7, A.11, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.1.9, C.1.10, C.1.11, C.1.14, C.1.17, C.1.18, C.1.19, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,
	Internal Medicine & its specialties	4	18	8	A.1.3, A.1.4, A.2, A.3, A.4, A.5.1, A.5.4, A.5.5, A.5.6, A.6.2, A.6.4, A.7, A.8, A.10, A.11, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.7, C.1.8, C.1.9, C.1.10, C.1.11,C.1.13, C.1.15, C.1.16, C.1.17, C.1.18, C.1.19, C.1.22, C.1.2 C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10,
					D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,

* Duration: **44 weeks.**

6-sixth year:

code	Course title	Lectures	Clinical rounds	Total weeks for clinical rounds	program ILO covered
2513 -	Internal Medicine	2	18	6	A.1, \(\tilde{\
2514	General Surgery	2	18	8	A.2, A.4, A.5.1, A.5.4, A.5.6, A.6.2, A.6.3, A.6.4, A.7, A.8, A.11, A.12, B.1, B.2, B.2.1, B.2.2, B.3, B.4, B.5, B.6, B.7, B.8, B.9.1, B.9.2, C.1.1, C.1.2, C.1.3, C.1.4, C.1.5, C.1.6, C.1.8, C.19, C.1.10, C.1.11,C.1.12, C.1.17, C.1.19, C.1.20, C.1.22, C.2.1, C.2.6, C.2.9, C.2.10, D.1.1, D.1.3, D.1.4, D.1.5, D.1.6, D.1.7, D.1.9, D.1.10, D.1.11, D.1.12, D.1.13, D.1.14, D.2.1, D.2.2, D.2.3, D.2.4, D.2.5,

* Duration: **40 weeks.**

<u>Percentage of courses forming the different components of the academic structure of the program:</u>

Basic science: 2600/6400= 40.6%

Clinical sciences: 3630/6400 = 56.72%

Language science: 60/6400 = 0.94%

Computer science: 60/6400 = 0.94%

Behavioral science: 50/6400 = 0.8%

Field Training = 20 hrs

7. Program admission requirements:

Enrollment to Fayoum Faculty of Medicine requires

a- Graduates of the Egyptian General Secondary Certificate (Scientific Section) or the Arabic and Foreign Countries equivalents. Acceptance of enrollment is made through Universities Admission Office, Ministry of Higher Education.

b- The Courses in Biology, Physics and Chemistry must be included within the secondary education program.

c- Enrollment of students transferred from other faculties inside or outside Egypt is according to the regulations of the Supreme Council of Higher Universities.

8. Regulation for progression and completion:

Students at the Faculty of Medicine must pass a theoretical and clinical education for 6 years followed by 12 months of hospital training. If a student fails in English language, computer science or humanities and behavioural sciences, he\she still can be promoted to the next academic year within the pre-clinical stage. The student should enter the exams of the first & second turns every year until he\she passes. If a student fails or misses not more than 2 medical subjects, he\she still can be promoted from the first academic year to the second academic year. The second academic year student is not promoted to the third academic year unless he\she passes all medical subjects. The third academic year student is not promoted to the clinical stage unless he\she passes all subjects studied in the pre-clinical stage.

The student passes automatically to the fifth grade regardless of the results and the same for sixth grade. To graduate the students must pass all medical courses and complementary courses.

Pre-registration house officer year (PRHO):

The students must spend twelve months rotating between different specialties of Fayoum University Hospitals and/or other Ministry of Health hospitals. They spend two months in each of pediatric, surgery, internal medicine, obstetrics and gynecology, emergency medicine, and anesthesia. They have the right to select one specialty as elective to spend additional two months. All the activities of the students during this year are under supervision of their residents.

The student should get a pass training certificate at the end of this year to a Bachelor degree in medicine and surgery.

9. Program evaluation;

The institution set a system for program evaluation:

Evaluator	Tool	Sample
1- Senior students	Questionnaire	sixth year students,
2- Alumni	Questionnaire	1- Consultant of the physician syndicate.
		2- Representatives from govern-mental and non governmental institutions and organizations.
3- Stakeholders	Questionnaire	Directors and head of governmental and non governmental institutions and organizations.
4-External Evaluator(s) (External Examiner(s)	Questionnaire	- Peers from other universities