

**ZAGAZIG UNIVERSITY - FACULTY OF MEDICINE**

2012/2015

**BACHELOR OF MEDICINE and BACHELOR OF SURGERY (MBBCh)**

**PROGRAM SPECIFICATIONS**

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**A. Basic Information**

**Program Title:**

Bachelor of Medicine and Bachelor of Surgery (M.B.B.Ch.)

**Program type:**

Single

**Responsible Departments:**

* Human Anatomy and Embryology
* Medical Physiology
* Histology and Cell Biology
* Medical Biochemistry
* Pharmacology
* Pathology
* Parasitology
* Microbiology and Medical Immunology
* Community, Environmental and Occupational Medicine
* Forensic Medicine and Clinical Toxicology
* Ophthalmology
* Ear, Nose and Throat
* Internal Medicine
* Chest
* Cardiology
* Neurology
* Tropical medicine
* Dermatology
* Clinical pathology
* Rheumatology and rehabilitation
* Psychiatry
* Paediatric medicine
* General Surgery
* Urology
* Neurosurgery
* Orthopaedics
* Cardiothoracic
* Anaesthesiology
* Diagnostic Radiology
* Obstetrics and Gynaecology

**Approval Date:**

**--/--/20—**

**B. Specific Information**

**1. Program Goals:**

Zagazig Faculty of Medicine undergraduate educational program, adopts the National Academic Reference Standards (NARS) for Medicine, issued by the National Authority for Quality Assurance and Accreditation in Education (NAQAAE) and aims at**:**

1. Graduating ***Professional Primary Health Care Providers*** who are qualified to**:**
2. Work to maintain normal health, and deal with common health problems in the society.
3. Be aware of the importance of a good doctor/patient relationship, and work to establish and maintain it.
4. Act in accordance with rules of medical ethics.
5. Display appropriate communication, clinical and practical skills.
6. Show appropriate attitudes and professional behavior
7. Be a lifelong learner.
8. Engage in post- graduate and research studies.
9. Practice basic administrative skills.
	1. Providing high quality undergraduate medical education program through a quality assurance management system according to ISO 9001:2008.
	2. Fulfilling the community health requirements according to the most recent applications in medicine.
	3. Collaboration with Ministry of Health (MOH) and other health and education facilities at the national, regional and international levels to develop a model of education combining the integrated and traditional curricula.

**2. Intended Learning Outcomes (ILOs):**

**By graduation, students enrolled in M.B.B.Ch. program at Zagazig Faculty of Medicine, are expected to be able to:**

**1. Knowledge and Understanding (KU)**

**KU.1** **Describe** Normal Human Body including:

a. Normal structure and function of the body (as an intact organism) and of each of its major systems.

b. Molecular, biochemical, and cellular mechanisms which are important in maintaining the body homeostasis.

c. Main developmental changes in humans and the effect of growth, development and aging on the individual and his family.

d. Basics of normal and abnormal human behaviors.

**KU.2** **Discuss** altered structure and function of the body and its major systems that are seen in various diseases.

**KU.3** **Explain** etiology, pathogenesis, clinical features, diagnoses and complications of common and life threatening illnesses affecting the body and each of its major organ systems, presenting throughout the age spectrum.

**KU.4 *Describe*** principles of management of common and life threatening illnesses including:

a. Pharmacological and non pharmacological basics

b. Non invasive and invasive intervention.

c. Basic pre- and post operative care.

d. Pain relief and palliative care.

**KU.5 Describe** Population Health and Health Systems including:

a. The determinants of health, principles of disease prevention and early detection of common community health problems.

b. Principle and organization of National Health Care System.

c. Epidemiological principles of demography and biological variability.

d. Principles of disease surveillance and screening.

e. Communicable disease control and health promotion.

f. Population-based approaches to health care services and their role in improving medical practice and health promotion.

**KU.6 Identify** basics of ethics as well as medico legal aspects of health problems, malpractice and common medical errors

**KU.7 Define** the action, metabolism, therapeutic uses and toxic effects of drugs and the different methods of disease treatment and /or prevention

**KU.8 Discuss** basics of patient’s safety and safetyprocedures during practical and clinical years

**KU.9 Recall** principles of clinical/practical audit

**KU.10 Describe** measures for infection control**.**

**KU.11 Describe** the bases of the different types of scientific research and research needs in the community

**2. Practical and Clinical Skills (PC)**

1. **Perform** basic sciences practical skills relevant to future practice as primary health care providers.
2. **Take** a structured, patient centered history
3. **Record** a structured, patient centered history
4. **Perform** full physical examination of patients that is appropriate to age, gender, acute and chronic clinical conditions while being culturally sensitive.
5. **Assess** the mental state of the patient
6. **Record** patients ' data clearly and appropriately
7. **Implement** management plans for common diseases and emergencies.
8. **Write safe** prescriptions of different types of drugs based on patient's weight, age and health condition
9. **Provide** first aid measures for injured and critically ill patients.
10. **Perform** venepuncture and collect blood samples
11. **Insert** a cannula into peripheral veins.
12. **Give** intramuscular, subcutaneous, intradermal and intravenous injections
13. **Suture** superficial wounds
14. **Display** competency in cardiopulmonary resuscitation and basic life-support
15. **Administer** compulsory childhood vaccines
16. **Perform** basic bedside laboratory tests
17. **Perform** ECG
18. **Administer** basic oxygen therapy
19. **Perform** basic respiratory function tests
20. **Use** a nebulizer for administration of inhalation therapy
21. **Insert** a nasogastric tube
22. **Insert** urinary catheter
23. **Perform** procedure of normal labor
24. **Apply** suitable measures for infection control

**3. Professional Attitude and Behavioral Skills (PA)**

1. **Maintain** an empathic and holistic approach to the patients and their problems.
2. **Respect** the choices and rights of patients (and/or their caretakers), especially regarding their medical care decisions
3. **Respect** the different cultural beliefs and values in the community they serve.
4. **Identify** the important role played by other health care professions in patients’ management.
5. **Keep** to the national code of ethics issued by the Egyptian Medical Syndicate
6. **Distinguish** one’s own limitations of knowledge and skills.
7. **Refer** patients to the appropriate health facility at the appropriate stage.
8. **Show** Ability to seek help when help is needed
9. **Counsel** patients and families suffering from different conditions.
10. **Show** commitment to the health needs of the community and society
11. **Show** balance between altruism (subordinating one's self interest to the interest of others) and one's personal needs

**House Officers should be able, by the end of internship program, to:**

1. **Ensure** confidentiality and privacy of patients’ information.
2. **Treat** all patients respectfully and equally, without arrogance, rudeness or harassment, regardless of believes, culture, and behaviors
3. **Work** respectfully and cooperatively with other health care professions for effective patient management.
4. **Be** willing to share in all types of inter-professional activities including collaborative and shared learning
5. **Cope** adaptively with stresses likely to occur during the medical profession
6. **Respond** **positively to** constructive criticism
7. **Ensure** the cost effectiveness of health care management.
8. **Report** any physical or mental conditions related to himself, colleagues or any other person that might jeopardize patients' safety.

**4. Communication Skills (CS)**

1. **Communicate** clearly, sensitively and effectively with patients and their relatives, and colleagues from a variety of health and social care professions.
2. **Establish** effective relationships with patients and their families that enables one to:
	1. Provide reassurance
	2. Give encouragement and support
	3. Convey empathy and caring
3. **Cope** effectively with individuals regardless of their social, cultural, ethnic backgrounds and their disabilities.
4. **Communicate** effectively with patients so that one can:
	1. Provide options in care
	2. Check accuracy and effectiveness of communication
	3. Identify failures in communication
	4. Communicate bad outcomes and mistakes
	5. Deal with anger
	6. Deliver bad news in a sensitive manner
	7. Set clear expectations
	8. Respond to patients’ questions and concerns
5. **Educate** patients:
	1. About their health care options
	2. Giving clear and understandable explanations
6. **Match** to traits of collegiality, flexibility, adaptability, reliability, punctuality and responsibility with colleagues and team members
7. **Communicate** effectively and respectfully with colleagues and health care team members
8. **Respect** patients and their relatives, superiors, colleagues and any other member of health profession.

**5. Intellectual Skills (IS)**

1. **Integrate** basic biomedical science with clinical care
2. **Reason** deductively in solving clinical problems; he/she will be able to:-
3. Recognize/Define clinical problems in provided case.
4. Prioritize the problems.
5. Interpret available information about the case including clinical data and results of investigation.
6. Analyze clinical problems in the light of results of history, physical examination and investigations.
7. Evaluate available information objectively, recognizing its limitations.
	1. **Seek** out information independently
	2. **Reach** independent judgment by analytical and critical problem solving
	3. **Integrate** the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.
	4. **Construct** appropriate management strategies for patients with common diseases, both acute and chronic, including medical, psychiatric, and surgical conditions.
	5. **Outline** management plan for common diseases and acute emergencies
	6. **Design** an initial course of management for stabilization of patients with serious illnesses.
	7. **Categorize** risk factors for disease or injury, to find out strategies for appropriate response
	8. **Demonstrate** understanding of Evidence-Based Medicine (**EBM**), being able to:
	9. **Formulate** patient-based questions
	10. **Search** Efficientlyliterature databases
	11. **Appraise** quality of studies/literature
	12. **Use** information technologyand library resources in order to solve a clinical problem based on evidence.
	13. **Apply** the results of a literature search to direct patient care
8. **Manage** theuncertainty that is unavoidable in the practice of medicine by accepting and reacting to uncertain situation through proper counseling, consultation and referral
9. **Be involved** into research and scientific methods, by being able to:
10. **Formulate** research questions that are significant to medicine
11. **Identify** the importance of precise medical data collection, analysis and interpretation.

**6. General and Transferable Skills (GS)**

1. **Be** prepared for the lifelong learning needs of the medical profession, being able to:
2. Employ accurate self/peer assessment
3. Learn from experience and feedback
4. Stay current with medical literature
5. **Utilize** information and communication technology effectively in the field of medical practice.
6. **Use** electronic means to get, and manage information.
7. **Present** information clearly in written, electronic and oral forms.
8. **Communicate** ideas and arguments effectively.
9. **Function** well as a member of a health care team.
10. **Analyze** numerical data including the use of simple statistical methods
11. ***Choose his/her own areas of interest in medical education (electives)***
12. ***Show responsibility for his/her own choices in medical education.***
13. **Show** good organizational skills with respect to:
	1. Time management with patient care
	2. Completion of records and paperwork in a timely manner
	3. Effective setting and reassessment of priorities
	4. The ability to handle multiple responsibilities simultaneously

**House Officers should be able to:**

1. **Apply** Evidence Based Medicine in management decisions.
2. **Effectively manage** time and resources and set priorities.
3. **Work** efficiently within the health care team and as an effective team leader.
4. **Solve** problems related to patients, work management, and among colleagues.
5. **Cope** with a changing work environment.
6. **Apply** safety and infection control measures during practice.
7. **Evaluate** their work and that of others using constructive feedback.
8. **Show** commitment to learning and scholarship
9. ***Choose his/her own areas of interest in medical education (electives)***
10. ***Show responsibility for his/her own choices in medical education.***

**3. Academic reference standards:**

Zagazig Faculty of Medicine has adopted the National Academic Reference Standards (NARS) for Medicine in faculty council 423 in 28/06/2009. However, the Faculty takes also in consideration the World Federation of Medical Education (WFME) standards and the American Liaison Committee of Medical Education (LCME) standards.

Comparison of Zagazig Faculty of Medicine M.B.B.Ch. program ILOs against the National Academic Reference Standards (NARS) for Medicine (Appendix 1)

**4. Program structure and components:**

**A. Program Duration:** Six academic years followed by one training (internship) year.

* Six academic years are divided into two phases:
1. First Phase (Preclinical phase): Years 1, 2 and 3, 30 weeks each.
2. Second Phase (Clinical phase): Years 4 (32 weeks), 5 and 6 (36 weeks).
* Internship year is divided into six training (5 compulsory and 1 selective) rotations, 2 months each. Compulsory rotations are: general surgery, internal medicine, paediatrics, obstetrics and gynaecology, and emergency and anaesthesia.

**B. Program Structure**

**• Number of hours:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Theoretical** | **Practical/Clinical** | **Field Training** | **Total** |
| 2290 | 2074 | 2910 | 7274 |

**• Courses Distribution**

| **Type** | **Hours** | **Percent** |
| --- | --- | --- |
| **Basic Sciences Courses** | **2100** | **28.9 %** |
| * Human Anatomy and Embryology (1 and 2) (480)
* Human Medical Physiology (1 and 2) (420)
* Histology and Cell Biology (1 and 2) (240)
* Medical Biochemistry (1 and 2) (270)
* Pathology (240)
* Clinical Pharmacology (180)
* Microbiology and Medical Immunology (150)
* Medical Parasitology (120)
 |
| **Social and Humanistic Sciences Courses** | **90** | **1.2 %** |
| * English Language (30)
* Behavioral and Humanistic sciences(30)
* Human Rights (30)
 |
| **Clinical Sciences Courses** | **2174** | **29.9 %** |
| Ophthalmology (200)Ear, Nose and Throat (124)Forensic Medicine & Clinical Toxicology (200)Public Health and Community Medicine (192)Internal Medicine (456)Pediatric Medicine (228)Surgery (516)Gynecology & Obstetrics (258) |
| **Field Training** | **2910** | **40.0 %** |
| Physiology (6)Physiology (6)Parasitology (6)Community Medicine (12)* Internship year (2880)
 |

**C. Program Courses**

**a. Compulsory**

| **Course Code** | **Course****Title** | **Hours** | **Weekly Hours** | **Study****Year** |
| --- | --- | --- | --- | --- |
| **Theoretical** | **Practical/Clinical** |
| AE UG 01 | Human Anatomy and Embryology | 240  | 120 | 120 | 1stYear |
| HP UG 01 | Human Medical Physiology | 210  | 150 | 60 |
| HC UG 01 | Histology and Cell Biology | 120  | 60 | 60 |
| MB UG 01 | Medical Biochemistry | 135  | 75 | 60 |
| EL UG 01 | English Language | 30 | 30 | --- |
| AE UG 02 | Human Anatomy and Embryology | 240  | 120 | 120 | 2ndYear |
| HP UG 02 | Human Medical Physiology | 210  | 150 | 60 |
| HC UG 02 | Histology and Cell Biology | 120  | 60 | 60 |
| MB UG 02 | Medical Biochemistry | 135  | 75 | 60 |
| BH UG 02 | Behavioral and Humanistic sciences | 30 | 30 | --- |
| PG UG 03 | Pathology | 240  | 120 | 120 | 3rdYear |
| CP UG 03 | Clinical Pharmacology | 180  | 120 | 60 |
| MI UG 03 | Microbiology and Medical Immunology  | 150  | 90 | 60 |
| MP UG 03 | Medical Parasitology | 120  | 60 | 60 |
| OP UG 04 |  Ophthalmology  | 200 | 80 | 120 | 4thYear |
| EN UG 04 | Ear, Nose & Throat | 124 | 64 | 60 |
| FT UG 04 |  Forensic Medicine & Clinical Toxicology | 200 | 80 | 120 |
| PC UG 04 | Public Health and Community Medicine | 192 | 128 | 64 |
| HR UG 04 | Human Rights | 30 | 30 | --- |
| IM UG 05 |  Internal Medicine | 456 | 216(General Medicine: 110+Special Medicine: 106) | 240General Medicine: 120 hrsSpecial Medicine: 120 hrs including:-CardiologyChestNeuropsychiatryTropical medicineRheumatology & RehabilitationDermatologyRadiology | 5thYear |
| PM UG 05 | Pediatric Medicine | 228  | 108 | 120 |
| SU UG 06 | Surgery | 516 | 216(General Surgery: 144+Special Surgery: 72) | 300General Surgery:150 hrsSpecial Surgery: 150 hrsOrthopedicsUrologyCardiothoracicNeurosurgeryAnesthesiaRadiology | 6thYear |
| OG UG 06 | Gynecology & Obstetrics | 258  | 108 | 150 |

**b. Selective:** None

**c. Elective:** None

**5. Courses Contents:**

Courses Specifications are attached to the program (Appendix 2).

**6. Program Admission Requirements:**

The Faculty of Medicine, Zagazig University is a governmental faculty in which the student's admission runs through the rules of the Supreme Council of Universities for those graduated from high schools in Egypt and/or equivalent certificate from Arab and/or Foreign countries from scientific section (Biology specialty). These regulations organize the admission process through the faculty with no cultural, sexual or religious discrimination.

**7. Regulations for Progression and Program Completion:**

Progression for all years requires the success in all examinations with a passing level of 60% of marks.

**8. Assessment Methods:**

Variable methods of assessment are used to assess the students' achievements according to the ILOs**. Assessments are both formative and summative.**

**Formative assessments and feedback**: include

* Quizzes during practical and clinical sessions.
* Extended direct observation checklist for assessment of communication, behavioural and general and transferable skills.

Formative assessment is accompanied by constructive feedback that facilitates development of the targeted skills. The model answers for quizzes will be announced for the students. Collective oral feedback will be given for the students by the responsible instructor that clarifies what are good things they have done and what points they need to improve.

**Summative assessments** include:

1. Written Examinations (Objective questions, modified essays, problem solving and case study)

2. Clinical, practical and attitude assessments (Objective Structured Practical/Clinical Examinations, assessments in skill labs, and clinical case examinations either long or short)

3. Oral examinations

Final Marks according to Bachelor of Medicine and Surgery (M.B.B.Ch.) bylaws are as follows:

**1. First Year of the program:**

|  |  |
| --- | --- |
| **Final Mark** | **Course Title** |
| 250  | Human Anatomy and Embryology |
| 250  | Human Medical Physiology |
| 150  | Histology and Cell Biology |
| 150  | Medical Biochemistry |
| 25 | English Language |
| 825 | **Total** |

**2. Second Year of the program**:

|  |  |
| --- | --- |
| **Final Mark** | **Course Title** |
| 250  | Human Anatomy and Embryology |
| 250  | Human Medical Physiology |
| 150  | Histology and Cell Biology |
| 150  | Medical Biochemistry |
| 50 | Behavioral and Humanistic sciences |
| 850 | **Total** |

**3. Third Year of the program:**

| **Final Mark** | **Course Title** |
| --- | --- |
| 300 | Pathology |
| 300 | Clinical Pharmacology |
| 200 | Microbiology and Medical Immunology  |
| 150 | Medical Parasitology |
| 950 | **Total** |

**4. Fourth Year of the program:**

|  |  |
| --- | --- |
| **Final Mark** | **Course Title** |
| 250 |  Ophthalmology  |
| 200 | Ear, Nose and Throat |
| 200 |  Forensic Medicine & Clinical Toxicology |
| 300 | Public Health and Community Medicine |
| 50 | Human rights |
| 1000 | **Total** |

**5. Fifth Year of the program:**

|  |  |
| --- | --- |
| **Final Mark** | **Course Title** |
| 900 |  Internal Medicine |
| 500 | Pediatric Medicine |
| 1400 | **Total** |

**6. Sixth Year of the program:**

|  |  |
| --- | --- |
| **Final Mark** | **Course Title** |
| 900 | Surgery |
| 500 | Gynecology & Obstetrics |
| 1400 | **Total** |

**9. Program Evaluation Methods:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Evaluator** | **Tool** | **Sample** |
| **1** | **Final year students** | Questionnaires | 250 students |
| **2** | **Graduates** | Questionnaires | 150 graduates |
| **3** | **Stakeholders/Employers** | Structured Interviews | 10 persons |
| **4** | **External evaluator** | External Audit/Review | Team of 3-4 auditors/reviewers |

**Program Coordinator: Signature:**

**Date: --/--/20--**