



Faculty of Medicine



*Suez Canal University
Program Specification*

PROGRAM SPECIFICATIONS

Program Title:

**Bachelor degree
of
Medicine and Surgery**



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University:

Faculty:

A- Basic Information

1. Program Title: Medicine and Surgery
2. Program Type: Single Double Multiple
3. Department (s): All 33 departments (Integrated system)
4. Coordinator: Vice Dean for Education
5. External Evaluator(s): not yet (revised by the “RUMP” Reform of Undergraduate Medical Program)
6. First date of Program modifications approval: N/A
7. Date of Program specification approval: 17/9/2018

B- Professional Information

1- Program Aims

The program aims to:

- 1- Provide high quality educational courses for under graduate students that help them to understand the structure and function of the human body and the common illnesses that can affect it.



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- 2- Prepare practitioners of medicine who are capable to apply the latest scientific knowledge for health promotion as well as the prevention and management of human diseases.
- 3- Graduate physicians who meet society's expectations, and are capable to deal with newly emerged health problems
- 4- Provide educational activities where students can learn and provide health service to the community.
- 5- Prepare physicians who are capable of serving the fundamental purposes of medicine and being leaders in improving health through patient care, research and education.
- 6- Prepare graduates to be a world -class doctors.

2- Competencies & Key competencies/Program ILOs

Competency area I: The graduate as a health care provider

The graduate should provide quality, safe, patient-centered care, drawing upon his/her integrated knowledge and clinical skills, and adhering to professional values. The graduate should collect and interpret information, make clinical decisions, and carry out diagnostic and therapeutic interventions - with an understanding of the limits of his/her expertise- considering the patient's circumstances and preferences as well as the availability of resources.

The graduate should be able to:

- 1.1. Take and record a patient's medical history, including family and social history.
- 1.2. Adopt an empathic and holistic approach to the patients and their problems.
- 1.3. Assess the mental state of the patient.
- 1.4. Perform appropriately timed full physical examination of patients appropriate to the age, gender, and clinical presentation of the patient while being culturally sensitive.
- 1.5. Prioritize issues to be addressed in a patient encounter.
- 1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.
- 1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.
- 1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.



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- 1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).
- 1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.
- 1.11. Perform diagnostic and intervention procedures² in a skillful and safe manner, adapting to unanticipated findings or changing clinical circumstances.
- 1.12. Adopt strategies and apply measures that promote patient safety.
- 1.13. Establish patient-centered management plans in partnership with the patient, his/her family and other health professionals as appropriate, using Evidence Based Medicine in management decisions.
- 1.14. Respect patients' rights and involve them and /or their families/ carers in management decisions.
- 1.15. Provide the appropriate care in cases of emergency, including cardio-pulmonary resuscitation, immediate life support measures and basic first aid procedures.
- 1.16. Apply the appropriate pharmacological & nonpharmacological approaches to prevent, reduce, or stop pain sensations
- 1.17. Provide palliative care for seriously ill people. Aiming to relieve their suffering and improve their quality of life.
- 1.18. Contribute to the care of patients and their families at the end of life, including management of symptoms, practical issues of law and certification.

Competency area II: The graduate as a health promoter

The graduate should advocate for the development of community and individual measures which promote the state of well-being, he/she should empower individuals and communities to engage in healthy behaviors, and put his/her knowledge and skills to prevent diseases, reduce deaths and promote quality life style.

The graduate should be able to:

- 2.1 Discuss basic principles of health improvement, including the wider determinants of health, health inequalities, health risks and disease surveillance.
- 2.2 Recognize the economic, psychological, social, and cultural factors that interfere with wellbeing.
- 2.3 Discuss the role of nutrition and physical activity in health.



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- 2.4 Identify the major health risks in his community, including occupational and environmental risks, endemic diseases and prevalent chronic diseases.
- 2.5 Discuss the principles and application of primary, secondary and tertiary prevention of disease.
- 2.6 Evaluate and apply epidemiological data in managing healthcare for the individual and the community.
- 2.7 Recognize the role of environmental and occupational hazards, in ill-health and discuss ways to lessen their effects.
- 2.8 Provide care for specific groups including pregnant women, newborns & infants., adolescents and the elderly.
- 2.9 Identify vulnerable individuals that may be suffering from abuse or neglect and take the proper actions to safeguard their welfare.
- 2.10 Adopt suitable measures for infection control.
- 2.11 Empower communities, by raising their awareness and building their capacity.

Competency area III: The graduate as a professional

The graduate should adhere to the professional and ethical codes, standards of practice, and laws governing practice.

The graduate should be able to:

- 3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, & respect.
- 3.2. Adhere to the professional and ethical codes, standards and laws governing the practice.
- 3.3. Abide by the national code of ethics issued by the Egyptian Medical Syndicate.
- 3.4. Respect the different cultural beliefs and values in the community they serve.
- 3.5. Treat all patients equally, and avoid stigmatizing any category regardless of their social, cultural, ethnic backgrounds, or their disabilities.
- 3.6. Ensure confidentiality and privacy of patients' information.
- 3.7. Recognize basics of medico legal aspects of practice, malpractice and avoid common medical errors.
- 3.8. Recognize and manage conflicts of interest.
- 3.9. Recognize his/her own limitations of knowledge and skills and refer patients to appropriate health facility at the appropriate stage.
- 3.10. Identify and report any unprofessional and unethical behaviors or physical or mental conditions related to himself, colleagues or any other person that might jeopardize patients' safety.



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Competency area IV: The Graduate as a scholar and scientist

The graduate should build his clinical practice on a base of knowledge of scientific principles and methods of basic medical and social sciences, applying this knowledge into clinical care, and using it as a foundation for clinical reasoning, care provision, further professional development and research.

The graduate should be able to:

- 4.1 Explain normal human structure and functions and the scientific bases for common disease presentations.
- 4.2 Explain the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
- 4.3 Recognize the normal growth and development of the human body, the aging process, and their effects on the individual and the community.
- 4.4 Explain psychological factors that contribute to illness, the course of the disease and the success of treatment and apply theoretical frameworks of psychology to explain the varied responses of individuals, groups and societies to disease.
- 4.5 Identify the nature of agents and mechanisms that produce alterations in structure and function of the body along with the interaction of medical, social, and environmental factors leading to disease genesis.
- 4.6 Describe Etiology, pathogenesis, morphological and clinical features, diagnoses and complications of common and life-threatening illness affecting the body and each of its major organ systems, presenting throughout the age spectrum.
- 4.7 Identify the management plans for different disease conditions, including pharmacologic and non-pharmacologic management and other treatment modalities.
- 4.8 Recognize the actions, metabolism, therapeutic uses, and toxic effects of drugs, while considering cost-effectiveness and effects on the population.
- 4.9 Demonstrate essential practical and clinical skills to identify normal and abnormal findings in structure and function of the human body systems and organs.
- 4.10 Interpret the most frequent clinical, laboratory, Imaging, electrocardiograms, and pathologic studies and functional assessment tests of common maladies.



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Competency area V: The graduate as a member of the health team and a part of the health care system

The graduate should work and collaborate effectively with physicians and other colleagues in the health care professions, demonstrating an awareness of and a respect for their roles in delivering safe, effective patient- and population-centered care. He/she should be committed to his/her role as a part of health care system, respecting its hierarchy and rules and using his/her administrative and leadership skills to add value to the system.

The graduate should be able to:

- 5.1 Recognize the important role played by other health care professions in patients' management.
- 5.2 Respect other health care professionals and work cooperatively with them for effective patient management.
- 5.3 Engage in shared decision-making with physicians and other colleagues in the health care professions.
- 5.4 Be willing to share in all types of inter-professional activities including collaborative and shared learning.
- 5.5 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.
- 5.6 Negotiate overlapping and shared responsibilities with physicians and other colleagues in the health care professionals.
- 5.7 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system.
- 5.8 Communicate effectively using a written health record, electronic medical record, or other digital technology.
- 5.9 Evaluate his/her work and that of others using constructive feedback.
- 5.10 Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.
- 5.11 Hand over the care of a patient to another health care professional to facilitate continuity of safe patient care.
- 5.12 Apply fundamental knowledge of health economics to ensure the efficiency & effectiveness of the health care system.
- 5.13 Use health informatics to improve the quality of patient care.
- 5.14 Document clinical encounters in an accurate, complete, timely, and accessible manner, in compliance with regulatory and legal requirements.



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5.15 Improve the health service provision by applying a process of continuous quality improvement.

5.16 Demonstrate accountability to patients, society, and the profession.

Competency area VI: Graduate as lifelong learner and researcher

The graduate should demonstrate a lifelong commitment to excellence in practice through continuous learning and professional development. He should reflect on his own performance, and plan for his own development making use of all possible learning resources. The graduate should have an inquisitive mind and adopt sound scientific research methodology to deal with practice uncertainty and knowledge gaps and to contribute to the development of his profession as well as for his own academic development.

The graduate should be able to:

- 6.1 Recognize own personal and professional limits using various performance indicators and information sources and seek help from colleagues and supervisors when necessary.
- 6.2 Analyze, interpret, objectively evaluate and prioritize information, recognizing its limitations.
- 6.3 Acquire, apply and integrate new knowledge, learn to adapt to changing circumstances.
- 6.4 Work with health care professionals, including those from other disciplines and professions, to continuously improve personal practice and contribute to collective improvements in practice.
- 6.5 Cope with uncertainty by:
 - accepting that uncertainty is unavoidable in the practice of medicine;
 - Using appropriate cognitive and intellectual strategies to deal with uncertainty when it arises.
- 6.6 Manage time and prioritize tasks, and work autonomously when necessary and appropriate.
- 6.7 Demonstrate insight into research and scientific method through:
 - a. critical appreciation of methodology;
 - b. formulating research questions that are pertinent to medicine;
 - c. choice and application of appropriate quantitative and qualitative methodologies;
 - d. collecting, analyzing and interpreting data;



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- e. Evaluate the relationship between evidence, audit and observed variation in clinical practice.
 - f. Summarize and present findings of relevant research
- 6.8 Formulate simple relevant research questions and design appropriate studies or experiments to address the questions.
- 6.9 Understand the ethical issues involved in medical research.
- 6.10 Critically appraise the results of relevant qualitative and quantitative studies as reported in the scientific literature.

3- Academic Standards

3a External References for Standards (Benchmarks)

- National Academic Reference Standards for Bachelor degree of Medicine and Surgery (NARS) (2nd edition, 2017)

3b Comparison of Provision to External References (matrix I)

- The program aims and competencies are conforming to the concepts and principles of the National Academic Reference Standards.



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4- Curriculum Structure and Contents

4.a- Program duration: 5 academic years and two Pre-registration House Officer (PRHO) year.

4.b- Program structure

The program consists of two phases. The first phase comprises year 1 and 2 and deals with patho-physiology of the different organ systems. The second phase comprises years 3,4 and 5 and deals with clinical clerkship.

4.b.i- No. of hours per week: Lectures Lab./Exercise Self-learning

Total:

4.b.ii- No. of credit points: Compulsory: 273 Elective: 28 Optional: NA

4.b.iii- No. of credit /points of basic sciences courses:105 (integrated modules)

4.b.iv- No. of credit /points of courses of social sciences and humanities:

1 credit point + included in the integrated modules

4.b.v- No. of credit /points of specialized courses: 162

4.b.vi- No. of credit /points of other courses: 5 (university requirements)

4.b.vii Practical/Field Training: included in the integrated modules



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5-Program Courses

Phase I (year 1&2)

Year	Module/Blocks	Code	Duration (weeks)	Points /Hours	Marks	
	Orientation/program strategies	2 week (Non-credit)				
PHASE 1 (The Basics) - Year 1						
				Points	Hours	
YEAR 1 Semester (1)	Foundation for basic sciences	FBS1.1.1	16	24	720	480
	Quality course	QC	2 hours / weeks for 15 weeks	1	30	20*
	English course	EC	4hours / weeks for 15 weeks	2	60	40*
Total			16	24+3	720	480
YEAR 1 Semester (2)	The Musculoskeletal System	MS 1.1.2	7	10.5	315	210
	Respiratory System	RS 1.1.3	5	7.5	225	150
	Cardiovascular system	CS1.1.4	6	9	270	180
	Human rights	HR	2 hours / weeks for 15 weeks	1	30	20*
	computer science	CS	2 hours / weeks for 15 weeks	1	30	20*
Total			18	27 +2	810	540
Research project I		RP I	2 hours / weeks for 30 weeks (taught within each educational block)			
Field training I		FT I	4 hours / weeks for 30 weeks (taught within each educational block)			
Professional skills and communication skills I		PCS I	2 hours / weeks for 30 weeks (taught within each educational block)			
Elective study I		ES 1	7 hours / weeks for 30 weeks	7	210	140
Total of year 1			34	51 +5	1530	1020



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Year	Module/Blocks	Code	Duration (weeks)	Points	Hours	Marks
YEAR 2* Semester (3)	Blood and Lymph	BL 1.2.5	4	6	180	120
	Gastrointestinal system	GS 1.2.6	7	10.5	315	210
	CNS	NS 1.2.7	7	10.5	315	210
YEAR 2* Semester (4)	Special Senses	SS 1.2.8	4	6	180	120
	Urinary System	US 1.2.9	4	6	180	120
	Endocrine and Metabolism	EM 1.2.10	5	7.5	225	150
	Reproductive system	RS 1.2.11	5	7.5	225	150
Research project II		RP II	2 hours / weeks for 30 weeks (taught within each educational block)			
Field training II		FT II	4 hours / weeks for 30 weeks (taught within each educational block)			
Professional skills and communication skills II		PCSII	2 hours / weeks for 30 weeks (taught within each educational block)			
Elective II		ES II	7 hours / weeks for 30 weeks	7	210	140
Total of year 2			36	54	1620	1080
Total marks of phase 1						2100



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PHASE II - Years 3,4,5

Year	Module/Blocks	Code	Duration (weeks)	Points	Hours	Marks
YEAR 3 Semester (5)	Primary & secondary care *(pediatrics, family medicine and community)	PHC/ ped 2.3.1	18	27	810	540
YEAR 3 Semester (6)	Primary & secondary care *(Obs./ Gyn., family medicine and occupational)	PHC/Obs2.3.2	18	27	810	540
Elective III		ES III	7 hours / week for 30 weeks	7	210	140
History of medicine and humanities		HMH	One hour/ week for 30 weeks (taught within each educational block)	1	30	20
Total of year 3						1080



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YEAR 4 Semester (7)	Medicine I **(Including GIT, Endocrinology, nephrology, clinical pathology, cardiology, radiology, chest, tropical, oncology)	MI 2.4.1	18	27	810	540
YEAR 4 Semester (8)	Surgery I **(General Surgery, Cardiothoracic, Urology, Neurosurgery) Total	SI 2.4.2	18	27	810	540
Elective IV		ES IV	7 hours / weeks for 30 weeks	7	210	140
Total of year 4						1080

* Research project III =2 hours / weeks for 30 weeks (taught within each educational block)

** Research project IV =2 hours / weeks for 30 weeks (taught within each educational block)



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Year	Module/Blocks	Code	Duration (weeks)	Points	Hours	Marks
YEAR 5 Semester (9)	Medicine II (Neurology, Rheumatology, Dermatology, Psychiatry)	MII 2.5.1	6	9	270	180
	Surgery II (ENT, Ophthalmology, Orthopaedics)	SII 2.5.2	6	9	270	180
	Emergency, legal medicine and clinical toxicology.	E&LM&CT 2.5.3	6	9	270	180
Total			18	27	810	540
Year	Module/Blocks	Code	Duration (weeks)	Points	Hours	Marks
YEAR 5 Semester (10)	Core clinical problem (module I)	CCP2.5.5	9	13.5	405	270
	Core clinical problem (module II)	CCP2.5.6	9	13.5	405	270
Total			18	27	810	540
Total year 5			36	54	1620	1080



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6- Teaching and Learning Methods

- 6.1 PBL tutorial sessions
- 6.2 Interactive lectures
- 6.3 seminars
- 6.4 Practical lab. training
- 6.5 Clinical Skills lab. training
- 6.6 Community Based Learning Activities (CBLA) (conducted in the primary health care centers)
- 6.7 Clinical sessions (Outpatient Clinics- inpatient - Emergency Department)

7. Student Assessment Methods

- 7.1 Written (MEQ) to assess the cognitive domain.
- 7.2 MCQs to assess the cognitive domain
- 7.3 Integrated OSPE to assess laboratory skills.
- 7.4 Observations (using observation checklists and rating scales) to assess Clinical skills (used for assessment in the clinical skills Lab, field training and clinical cases).
- 7.5 Portfolio to assess the cognitive, psychomotor and the affective domains.
- 7.6 OSCE to assess the psychomotor and the affective domains.

Weighting of Assessments Phase I and II

- Portfolio 20%
- End of semester exam 80%
 - I. Practical/ clinical (Including Integrated OSPE, field exam OSCE and skill lab.) 60%
 - II. Written exam 40%

Final exam (25%)

- Practical/ clinical (Including basic science Lab, field exam, OSCE and skill lab.) 60%
- Written exam 40%



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8. Program Admission Requirements

The program accepts the Egyptian high school certificate or its equivalence (IGCSE, American High School Diploma, Abitur etc.) according to their rank and the number of student recruitment determined annually by the Supreme Council for Universities.

9. Regulations for Progression and Program Completion

First Year

Passing level 60% of total marks of the educational blocks (student can be transferred to year 2 without passing 2 educational blocks where their credit points is not more than 20 credit points)

Second Year

Passing level 60% of total marks of all the educational blocks of year 1 and 2

Third Year:

Passing level 60% of total marks of the educational blocks (student can be transferred to year 4 without passing only one educational block)

Fourth Year:

Passing level 60% of total marks of the educational blocks (student can be transferred to year 5 without passing only one educational block)

Fifth Year:

Passing level 60% of total marks of all the educational blocks of year 3, 4, 5 is a prerequisite to sit for the final exams



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10. Evaluation of Program competencies

Evaluator	Tool	Sample
1- Senior students	Questionnaires	Random Sample
2- Alumni	Questionnaires	Random Sample
3- Stakeholders	Interviews	Cluster random sample
4-External Evaluator(s) (External Examiner(s))	Templates and checklists for validation Of the specifications	Selected experts
5- Other		

Program coordinator:

Vice dean for education and students' affairs



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