



*Faculty of Medicine
Suez Canal University*

*Surgery Department
Program Specification, M.D.*

Program Title:

MD of Vascular and Endovascular Surgery

Code:
GSVS



Program Specification

A- Basic Information

1- Program Title: **MD of Vascular and Endovascular Surgery**

2- Program Type: **Single** **Double** **Multiple**

3- Department (s): **General Surgery Department (Vascular unit).**

4- Coordinator: **Dr. Hatem Hussien**

5- External Evaluator(s): **Prof. Amro Gad, Cairo University.**

6- **Last date of program specifications approval:** the bylaws of the MD program in Vascular and Endovascular Surgery in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities on 2016

7- **Date of program specification revision approval:** November 2019

8- **Number of credit points for this degree: 180 CP**

(B) Professional information

(1) Program Aims:

The broad aims of the Program are as follows:

- 1- Perform advanced vascular surgery procedures particularly those which are common and affecting the risky population groups, in addition to mastering the principles and basis of other procedures of rare, risky and highly specialized operations based on mature understanding and integration of the related basic knowledge and techniques.
- 2- Apply rules and steps of surgical and patient safety, risks and disinfection, and push other team personnel to respect and implement them in all occasions.
- 3- Respect surgical specialties and master the basics of every other surgical specialty to implement them properly when needed.
- 4- Communicate with different styles of personalities and properly deal with the patients, colleagues and seniors his work setting and in all circumstances of work according to the standards approved by health evaluation and accreditation associations, national and international.
- 5- Detect and interpret patient's history and physical findings accurately and objectively, reach a provisional diagnosis and plan management of the condition considering all



aspects of the patient as well as bearing in mind the possibilities of rare conditions.

- 6- Properly choose the diagnostic and treatment modalities in proper priority and cost-effective manner and interpret their results in coordinate way to give the best chance for curing and/or improving the quality of life of these patients.
- 7- Understand the role of research in clinical decision making, basis of sound decision making as well as dealing with all forms and sources of data including computer skills and critical appraisal.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

Candidates must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social behavioral sciences, as well as the application of this knowledge to patient care. On successful completion of the program, the candidate will be able:

A- Knowledge and Understanding

- a1 Discuss the physiological and pathological processes underlying common vascular diseases and conditions and its management
- a2 Describe the anatomical and embryological basis of congenital and acquired vascular conditions, diseases and interventions
- a3 Relate infections with microorganism to different clinical presentations and management strategies for common surgical infections encountered in the vascular surgery practice.
- a4 Classify vascular diseases and conditions
- a5 Describe the presentations of common vascular diseases
- a6 List different investigations used in vascular practice
- a7 Describe the action, adverse effects, toxic effects, contraindications and drug interaction of drugs commonly used in the management of vascular problems including drugs used the preoperative, intraoperative period and for critically ill patient
- a8 Describe conservative modalities and drug management of vascular conditions, its indications, contraindications, side effects
- a9 Discuss the principles of open vascular & endovascular surgery
- a10 Describe preoperative preparation vascular and endovascular procedures
- a11 Describe the appropriate technique and steps of common vascular & endovascular procedures
- a12 Outline the principles of advanced and complex operations of vascular & endovascular procedures
- a13 Recognize and appreciate the basis for medico-legal and ethical aspects related to the



- care of surgical patients and related to surgical research and its reflection on environment.
- a14 Demonstrate knowledge of the principles of clinical research design, implementation, and interpretation.
 - a15 Demonstrate advanced knowledge of biostatistics.
 - a16 Provide the major goals of an effective quality assurance program

B- Intellectual skills

- b1. Select the relevant laboratory and radiological investigations required to reach an accurate diagnosis of vascular diseases and conditions, based on his/her understanding of the nature of the pathology and the scope & limitations of the investigation
- b2. Interpret the results of laboratory and radiological investigations
- b3. Formulate a sound management plan when provided with a real or virtual patient with a vascular problem
- b4. Perform scientific research and write scientific papers
- b5. Plan to improve performance related to vascular & endovascular surgery
- b6. Make decisions in relation to different professional situations
- b7. Apply and use modern, best evidence in making decisions about the care of individual patients

C- Professional/practical skills

- c.1 Examine different vascular systems of the body, including the arterial, venous, lymphatics, and extremities as well as different swellings & malformations.
- c.2 Detect manifest clinical abnormalities relevant to vascular diseases, conditions and abnormalities
- c.3 Construct a plan of management for a given clinical situation
- c.4 Counsel patients and/or relatives to improve health education, explain management options, postoperative complications and management outcomes
- c.5 Prepare the patient for vascular & endovascular procedures
- c.6 Assist with efficiency and recognize challenges and difficulties and assess risk during major vascular & endovascular procedures
- c.7 Perform independently vascular & endovascular surgical procedures with adequate proficiency
- c.8 Apply safety procedures in operating room and endovascular suit
- c.9 Write and evaluate medical reports
- c.10 Evaluate different methods and tools available related to endocrinology

D- Communication & Transferable skills

- d.1 Demonstrate the ability to provide direct communication to the referring physician or appropriate clinical personnel when interpretation of a laboratory assay reveals an urgent, critical, or unexpected finding and document this communication in an appropriate fashion.
- d.2 Effectively utilize a range of information sources including information technology/health informatics.



- d.3 Educate and evaluate performance of peers
- d.4 Critically evaluate their personal performance both as an individual and within a team.
- d.5 Demonstrate capacity for self-learning and independent thinking and to utilize problem solving skills.
- d.6 Use different resources to obtain knowledge and information.
- d.7 Demonstrate skills in working collegiately and effectively with others as a member of a team.
- d.8 Conduct both individual consultations and presentations at multidisciplinary conferences that are focused, clear, and concise.

(3) Academic standards:

3a - External References for Standards (Benchmarks)

- The generic Academic Reference Standards (ARS) of NAQAAE for Postgraduate

3b -Comparison of Provision to External References

(4) Program structure and contents:

Program duration: The program lasts for a minimum of 3 academic years and maximum 7 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February, 2016.

Program structure:

MD Program Credit points (CP) structure:

No. of credit Points: the MD program is 180 credit Point system.

Every credit point include 25 working hour (30% = 7 hours for face to face learning activities, and 70% =18 hours for self-learning activities).

*The program consists of **First part 30 CP, Thesis 50 CP, and Second part 100 CP***

1. **The first part of the program:** 30 CP, its duration (15 weeks) for one academic semester. The first part comprises the following:
 - a. A course in Research Methodology and Biostatistics planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University. This part includes 8 CP.
 - b. Two electives each one has 2 CP. The students should select one elective which has not been selected in the Master Degree.
 - c. A course in Surgical Anatomy planned and held in the Anatomy Department. It includes 6 CP.
 - d. A course in Physiology planned and held in the Physiology Department. It includes 6 CP.
 - e. A course in Surgical Pathology planned and held in the Pathology Department. It includes 6 CP.



- 2- **MD thesis:** 50 CP, no scores for thesis. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 2 years from the date of the faculty council approval on the thesis protocol.
- 3- **The second part of the program:** 100 CP, its duration (75 weeks) for 5 consecutive academic semesters. The second part comprises the specialized courses in vascular and endovascular Surgery, planned and held in the Surgery Department. This part lasts for 2 years ending by written, oral and practical exams.

5-Program Courses

Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Duration	Marks		
BR	Research methodology and biostatistics	8	1	3 hours	160		
GSVS 51	Surgical Anatomy	6	1	3 hours	90	30	
GSVS 52	Physiology	6	1	3 hours	90	30	
GSVS 53	Surgical Pathology	6	1	3 hours	90	30	
E	Two Elective courses*	2+2	1+1	1 +1 hour	40+40		
Total		30 credit points			600 marks**		

***Student should select one course of the following as an elective course:**

Two elective courses each one has 2 CP. The students should select two elective which has not been selected before in the Master Degree.

- E01 Evidence Based medicine (Community Department)
- E02 Scientific Writing (Medical Education Department)
- E03 Quality in Medical Education (Medical Education Department)
- E04 Infection Control (Microbiology Department)
- E05 Critical Appraisal (Community Department)
- E06 Communication Skills (Medical Education Department)



Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam	Continues assessment *(Portfolio)
			No of papers	Duration	Marks			
GSVS 54	Advanced Course in vascular and endovascular Surgery	30	3	3 hours 3 hours 1.5 hours	225+ 225+ 90+	180	540	540
	Practical and clinical training in Vascular and endovascular surgery	60						
	***Scientific activities	10 (not included in the total marks)						
Total		100 credit points			1800**marks			

(6) Program Admission Requirements

- The program accepts candidates with Masters in General Surgery with a grade of GOOD at least.
- Registration for the program opens 2 times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

(7) Student Assessment Methods

- Written (MEQ)** to assess the cognitive domain.
- MCQs** to assess the cognitive domain
- Oral Viva Cards** to assess higher cognitive and attitude domains.
- Observations** to assess practical and presentation skills.
- Portfolio** to assess the cognitive, psychomotor and the affective domains.

(8) Weighting of Assessments

Type of exam

First part (30 credit points= 600 mark)

- Written exam 510
- Oral exam 90
- **Total** 600

Second part (100 credit points including 10 credit points not included in the total marks =1800)



	mark)
• Oral exam	180
• Practical exam	540
• Written exam	540
• Portfolio	540
• Total	1800
Total of the degrees	2400

(7) Regulations for Progression and Program Completion

- The regulations for program completion follow the general regulations for the Faculty of Medicine, Suez Canal University for MD approved by the Supreme Council of Universities. The program is considered complete with the accomplishment of 2 summative assessments (for the first and the second parts) and the defense of a thesis developed and submitted for the purpose of acquiring the degree.
- **First part**
Passing level 60% of total marks of the exam and at least 50% passing level of the total written exam marks
- **Second part**
Passing level 60% of total marks of the exam
Passing level 60% of total practical and oral exam for each subject
Passing level 60% of total written exam for each subject
- **Thesis/Assay**
Passing discussion is required for MD degree

(8) Evaluation of Program's intended learning outcomes (ILOs):

Evaluator	Tool	Sample
1- Postgraduate students	questionnaires	Random sample
2- Stakeholders	Self-administered questionnaires Focus groups	
3-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	

**Head of Surgery Department:
Prof. Mohamed Abd El Moaty**

Date: / /



**Faculty of Medicine
Suez Canal University**

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Benchmark	Program ILOs Covered (By No.)
2.1: Knowledge and understanding	
By the end of the postgraduate MD program the candidate should be able to know and understand the following:	
2.1.01 Theories, basic and specific knowledge related to his specialty as well as basic sciences related to practice in his field	a1 – a12
2.1.02 basis, methods and ethics of scientific researches and its different tools	a14
2.1.03 Basic of ethics and medico legal aspects of professional practice, related to the specialty	a13
2.1.04: basis and principles of quality in professional practice related to the specialty	a16
2.1.05 Related information concerned with the effects of professional practice on the environment and methods of environmental maintenance and development	a13
2.2- Intellectual Skills	
By the end of the postgraduate MD program the candidate should be able to:	
2.2.01 Analyze and evaluate knowledge to solve problems related to his specialty	b1, b2
2.2.02 solve specific problems with available data	b1, b2
2.2.03 Perform scientific research adding new information	b4
2.2.04 Writing scientific papers	b4
2.2.05 Risk assessment in professional practices	c6
2.2.06 Plan to improve performance related to specialty	b5
2.2.07 professional decision making in relation to different professional sequences	b6
2.2.08 Be innovative and creative	b7
2.2.09 discuss on basis and evidence	b7
2.3- Practical and Clinical Skills	
By the end of the postgraduate MD program the candidate should be able to:	
2.3.01 Demonstrate essential practical skills related to his specialty	c1 to c8
2.3.02 Write and evaluate professional reports	c9
2.3.03 Evaluate different methods and tools available related to specialty	c10
2.3.04 Use technology to serve professional practice	d2, d6
2.3.05 plan to develop professional practice and improve performance of others	d3, d4
2.4 General and transferable skills	
By the end of the postgraduate MD program the candidate should be able to	
2.4.01 Communicate ideas and arguments effectively	d1
2.4.02 Use information technology to serve in the development of professional practice	d2
2.4.03 Educate and evaluate performance of others	d3
2.4.04 self evaluation and lifelong learning	d4, d5
2.4.05 Use different resources to obtain knowledge and information.	d2, d6
2.4.06 Work effectively within team and lead a team effectively	d4, d7
2.4.07 Patron scientific meetings and manage time effectively	d8

Head of the department

Prof. Mohamed Abd El Moaty