Cairo University
Faculty of Medicine
Department of General surgery

Program Specifications
MD Degree in GENERAL SURGERY

Program type: single

Program code: SURG 912

Department offering the program: Department of General surgery.

Chairman of the program: Head of the department of General Surgery

Professor Dr Ahmed Farag

Total credit points: 110 points

Academic year:2017-2018

Program Coordinators: Professor Dr Amr Elshayeb

External evaluator: Professor DrYosryGawish

Professor Hassan Shaker

Last date of program specifications approval: 29 January 2017

I. Program aims

The aim of the program is to provide the community with competent surgeons at the highest level of the cognitive domain capable of problem solving and generating genuine solutions for surgical problems in a safe, ethical and professional manner. They have to be at the highest level of surgical skills. Most of the candidates will have academic tasks (teaching and conduct scientific research), and clinical task as consultants of general surgery or one of its specialties. The program aims at developing such competences. Advanced teaching, research and clinical consultant capabilities are expected from potential future lecturers affiliated candidates to teaching universities hospitals at the end of the program, whereas advanced research capabilities and clinical consultants are required from candidates affiliated to the Ministry of Health hospitals at the end of the program.

II. Intended Learning Outcome (ILOs):

A) Knowledge and Understanding :

By the end of the program the candidate should be able to:

1) Integrate basic science knowledge-including anatomy, physiology and pathology to the practice of general surgery.

2) Recognize the clinical manifestations, complications, diagnostic modalities, outcomes and treatment plans for common and/or important surgical problems, with special emphasis on emergencies and malignancies.
3) Choose the proper methods of screening and early detection of cancer.
4) Recognize the ethical principles that govern decision-making in surgical practice.
5) Recognize medico legal aspects in surgical practice.
6) Recognize the principles of preoperative preparation and postoperative care.
7) Recognize of research methodology.
8) Define principles of clinical audit.

B) Intellectual skills:

By the end of the program the candidate should be able to:

1. Perform and analyze a complete medical history and physical examination.
2. Perform and analyze an emergency-directed examination for patients with common surgical emergencies.
3. Utilize sources of information like medical records, patient's family/friends to augment medical history.
4. Interpret patient symptoms and physical findings in terms of their anatomic, pathologic and functional diagnostic significances.
5. Solve problems, and generate a list of differential diagnosis for each problem.
6. Select the most appropriate and cost-effective diagnostic and therapeutic procedure for each problem.
7. Interpret the results of commonly used diagnostic procedures
8. Use the results of all the tests ordered to modify the problem list and the differential diagnosis accordingly.
9. Combine the clinical and investigational database, with the evidence-based knowledge and the skill of deductive reasoning to be proficient in clinical problem solving.

10. Evaluate the effectiveness of therapy by identifying clinical and investigative parameters to be used in assessing the patient's response to treatment and re-evaluate management plan accordingly.
11. Identify and select patients with life/organ-threatening surgical conditions and perform appropriate therapy.
12. Plan and properly present a research project.

C) Professional and practical skills (technical abilities):

By the end of the program the candidates should be able to:

1. Take and record a structured patient-centered history in acute and chronic conditions.
2. Perform full physical examination appropriate to age and gender in acute and chronic clinical conditions
3. Provide first aid measures (Resuscitate) for emergency patients; injured and /or critically-ill
4. Compose an initial plan of management for stabilization of injured and critically-ill patients
5. Construct appropriate management plan for patients with common and important surgical diseases
6. Order appropriate investigations.
7. Perform routine bedside procedures.
8. Apply the principals of Safety and infection control guidelines
9. Provide patient care in the preoperative and postoperative periods
10. Keep and properly present patient records.
11. Search effectively electronic resources to help clinical problem solving
12. Apply basic surgical skills in the use of instruments and tissue handling.
13. Perform safely the expected surgical interventions at the end of the program
14. Prepare efficiently presentations and journal clubs.

D) Professional Attitude and Behavioral Skills:

By the end of the program the candidates should be able to:

1. Conduct sincere and effective patient interviews, properly explain the condition and-plan of management, obtain informed consents and convey bad news in a professional way.
2. Adopt an empathic and holistic approach to patients and their problems, taking into consideration beliefs values, goals and concerns
3. Respect Patients confidentiality and deliver care in an honest, considerate and compassionate manner
4. Work as an effective and cooperative team member.
5. Communicate, consult and respect the role of other health-care providers.
6. Respect and follow the institutional code of conduct.
7. Apply the principles and ethics of research study.
8. Apply the ethical principles related to organ donation.
9. Explain professional errors in an honest way.

III. Academic Standards Benchmark

External References for Standards:

Royal College of Surgeons of England

Australian College of Surgeons

American College of Surgeons

IV. Program Structure and Contents.

a) Program admission requirements

According to the bylaws of the Faculty of Medicine Cairo University applicants should have MBBCh and Master Degree of General Surgery. Admission to the program is open twice in October and March. Training prior to registration may be accredited according to departmental evaluation.

b) Program duration: Three years

c) Program structure: **Total Credit points 110 points**

General surgery (advanced course)	20 credit points
Clinical and practical training	47 credit points
Scientific activities	3 credit points
M.D. Thesis	40 credit points

NB: 1credit point= 15 lectures (one hour each) or 30 hours of surgical training.

d) Training Program

According to the new Bylaws, July 2016 for postgraduate programs, all the students should have a general surgical training for 6 years.

e) Scientific Activities:

The candidate should participate in the scientific activities of the departments such as:

- National and International conferences, workshops and training courses.
- Seminars (including recent topics and controversial issues) once weekly. Students are expected to participate in the discussions.
- Scientific meetings arranged by the department of general surgery.
- Attendance of Thesis discussions (2 per year).
- Courses in basic and advanced laparoscopy, stapling, sutures and anastomotic techniques in the LRC (Learning Resource Center).
- Courses in Advanced Trauma Life Support (ATLS)
- Publications in peer review journals.

NB: Each activity will be monitored and given credit points registered in a logbook. The candidate should collect the required points before being allowed to sit for final exam.

V. Quality Control

A committee headed by a senior professor and representatives of each surgical unit to monitor the learning process (trainees and trainers abiding by the training program increments and log book in reality) and make the necessary adjustments. The committee will present its report to the council

VI. Teaching methods:

- Lectures
- Independent assignments
- Tutorials
  - Slides/data show
  - Discussion groups
  - Presentations

V. Teaching and learning facilities:

Lecture halls.

Rooms for small groups

List of references

- Essential books (text books)
  a. Last's Anatomy: Regional and Applied
  b. SABISTON TEXTBOOK (The Biological Basics of Modern Surgical Practice)
  c. Maingot's Abdominal operations
  d. Mastery of Surgery
  e. Clinical Surgery in General

Periodicals and Web sites

VI. Assessment:

Attendance criteria:

The prerequisite for entry the final examination is 75% attendance of the lectures as shown in the attendance book.

Assessment tools:

Final examination: Written and oral

Assessment schedule:to be announced by the College

Examination description:

Written exam.

- Paper I : (short questions +MCQ) 125 marks
- Paper II: (Short questions + MCQ) 125 marks
- Paper III: (Clinical commentary cases) 125 marks
- Paper IV: (Surgical Anatomy & Surgical Pathology) 125 marks

Oral: number of examiners (four per candidate)

- Surgical ICU+ Anatomy 125 marks
- Clinical long case+ 2 short cases 125 marks
- Operative technique 125 marks
- Surgical radiology and pathology 125 marks

Total 1000 marks

Course contents (Syllibus):

Index		
Code	Subject	
1	Applied Surgical Anatomy	
	1.1	Upper Limb
	1.2	Lower Limb
	1.3	Head, Neck & Spines
	1.4	Thorax
	1.5	Abdomen, Pelvis & perineum
2	Surgical Physiology	
	2.1	General Physiological principles
	2.2	Physiology of Respiratory System
	2.3	Physiology of Gastrointestinal Tract
	2.4	Physiology of Cardiovascular System
	2.5	Physiology of Endocrine System
	2.6	Physiology of Renal System
	2.7	Physiology of the Nervous System

3	Surgical Pathology	
	3.1	Inflammation
	3.2	Wound Healing
	3.3	Shock
	3.4	Surgical Oncology
	3.5	Vascular Disorders & Surgical Hematology
	3.6	Surgical Infections & Antibiotics
	3.7	Disorders of Growth, Differentiation & Morphogenesis
	3.8	Surgical Immunology & Organ Transplantation
	3.9	Surgical Biochemistry
4	Principles of Surgery	
	4.1	Preoperative Care
	4.2	Postoperative Management & Critical Care
	4.3	Surgical Technique & Technology
	4.4	Management & Legal Issues in surgery
	4.5	Clinical Microbiology
	4.6	Emergency Medicine & Management of Trauma
	4.7	Introduction to modern surgery: Surgical research Evidence based medicine Auditing Molecular biology
5	Traumatic Surgical Emergencies	
6	The Neck	
7	Salivary Glands	
8	Breast	
9	The Vascular System	
10	The lymphatic System	
11	Plastic Surgery	
12	Skin & Subcutaneous Tissue	
13	Burns	
14	Endocrine Surgery	
	14.1	Thyroid Gland
	14.2	Parathyroid Glands
	14.3	Adrenal Gland
	14.4	Endocrine Disorders of the Pancreas

	14.5	Carcinoid syndrome
	14.6	Multiple Endocrine Neoplasia
15	Cardiothoracic Surgery	
16	Neurosurgery, Scalp, Skull & Brain	
17	Pharynx & Esophagus	
18	Stomach & Duodenum	
19	Hepatobiliary	
20	The Pancreas	
21	The peritoneum, Omentum& mesentery	
22	The Spleen	
23	Small & Large Intestine	
24	The Appendix	
25	The Anal Canal	
26	Abdominal Wall & Hernias	
27	Pediatric Surgery	
28	Acute Abdomen	
29	Urogenital System	
30	Testis & Scrotum	
31	Orthopedic Surgery	
32	The Spine & Spinal Cord	
33	History taking & Physical examination	
34	Surgery of organ transplantation	

Abbreviations & Definitions

1- Abbreviations	
ARDS	Adult Respiratory Distress Syndrome
B	Behavior
CT	Computed Tomography
DPL	Diagnostic Peritoneal Lavage
EF	Egyptian Fellowship
Emerg.	Emergency
FNAC	Fine Needle Aspiration Cytology
ILO	Intended learning Outcome
IS	Intellectual skills
K	Knowledge
MRCP	Magnetic Resonance Cholangiopancreatography
MRCSI	Membership of the Royal College Of Surgeons of Ireland
MRI	Magnetic Resonance Imaging
OP.	Operative
OSPE	Objective Structured Practical Exam
PTC	Percutaneous Transhepatic Cholangiography
TS	Technical skills
WP	Work Place
2- Definitions	
A- Level of Knowledge	
L1	A basic knowledge & understanding that does not go much beyond bookwork & general reading. At this level there is only an elementary linkage of cause & effects between basic sciences & clinical conditions.
L2	Deeper knowledge & understanding that allows link & cause & effect to be demonstrated. At this level there is an expectation of a basic ability to define conditions & outline principles of management & the process of diseases.
L3	In depth knowledge & understanding that can where appropriate, be applied to clinical situations. At this level there is an expectation of an ability to synthesize information to draw appropriate conclusions, to explain complex conditions & processes, to make diagnoses & to discuss conclusions & management in details. It is also expected that candidates' grasp of subject matter would be sufficient to enable them to justify their conclusions & suggest alternative approaches or explanations.
B- Five Point Scales for Clinical and Technical Skills (including procedures)	
F1	Has observed
F2	Has assisted
F3	Can do with assistance
F4	Can do whole but may need assistance
F5	Competent to do whole without assistance, including managing complications