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## Program Specification for Doctorate Degree in Pediatric Surgery (2016/2017)

### A. Basic Information

1. Program title: Pediatric Surgery

2. Program type: Single  Dual  Multiple

3. Department offering the program: Department of General Surgery, Pediatric Surgery Unit

4. Date of approval by department council:

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**Cairo University - Faculty of Medicine**  
**Department of General Surgery**

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## B. Professional Information

### 1. Program General Aims

1. Provide the community with competent pediatric surgeons.
2. Surgeons should be capable of problem solving in a safe, ethical and professional manner.
3. Candidates should have advanced teaching capabilities.

### 2. Intended Learning Outcomes of Program (ILOs)

#### A. Knowledge and Understanding:

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

- a. Integrate basic science knowledge-including anatomy, physiology and pathology to the practice of pediatric surgery.
- b. 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.
- c. Choose the proper methods of screening and early detection of cancer and congenital anomalies.
- d. Recognize the ethical principles that govern decision-making in surgical practice.
- e. Recognize medico legal aspects in surgical practice.
- f. Recognize the principles of preoperative preparation and postoperative care.
- g. Recognize of research methodology.
- h. Define principles of clinical audit.

#### B. Intellectual skills:

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

- a. Perform and analyze a complete medical history and physical examination.
- b. Perform and analyze an emergency-directed examination for patients with common surgical emergencies.
- c. Utilize sources of information like medical records, patient's family/friends to augment medical history.
- d. Interpret patient symptoms and physical findings in terms of their anatomic, pathologic and functional diagnostic significances.
- e. Solve problems, and generate a list of differential diagnosis for each problem.
- f. Select the most appropriate and cost-effective diagnostic and therapeutic procedure for each problem.

- g. Interpret the results of commonly used diagnostic procedures
  - h. Use the results of all the tests ordered to modify the problem list and the differential diagnosis accordingly.
  - i. Combine the clinical and investigational database, with the evidence-based knowledge and the skill of deductive reasoning to be proficient in clinical problem-solving.
  - j. 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.
  - k. Identify and select patients with life/organ-threatening surgical conditions and perform appropriate therapy.
  - l. Plan and properly present a research project.
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### **C. Professional skills:**

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

- a. Take and record a structured patient-centered history in acute and chronic conditions.
  - b. Perform full physical examination appropriate to age and gender in acute and chronic clinical conditions
  - c. Provide first aid measures (Resuscitate) for emergency patients; and /or critically-ill
  - d. Compose an initial plan of management for stabilization of critically-ill patients
  - e. Construct appropriate management plan for patients with common and important surgical diseases.
  - f. Order appropriate investigations.
  - g. Perform routine bed side procedures.
  - h. Apply the principals of Safety and infection control guidelines.
  - i. Provide patient care in the preoperative and postoperative periods.
  - j. Keep and properly present patient records.
  - k. Search effectively electronic resources to help clinical problem solving.
  - l. Apply basic surgical skills in the use of instruments and tissue handling.
  - m. Perform safely the expected surgical interventions at the end of the program.
  - n. Prepare efficiently presentations and journal clubs.
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### **D. General and Transferable skills:**

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

- a. 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.
- b. Adopt an empathic and holistic approach to patients and their problems, taking into consideration beliefs values, goals and concerns
- c. Respect Patients confidentiality and deliver care in an honest, considerate and compassionate manner
- d. Work as an effective and cooperative team member.
- e. Communicate, consult and respect the role of other health-care providers.
- f. Respect and follow the institutional code of conduct.

- g. Apply the principles and ethics of research study.
  - h. Apply the ethical principles related to organ donation.
  - i. Explain professional errors in an honest way.
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## Cairo University - Faculty of Medicine Department of General Surgery

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### 3. Academic Standards

The academic standards of the **Pediatric Surgery** program are adopted and accredited by the department council.

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#### 4. External References for Standards *(Bench mark: name university or institute offering similar program)*

- Royal college of surgeons
- European board of pediatric surgery

### 5. Program Structure and Contents

#### A. Program admission requirements

According to the bylaws of the Faculty of Medicine Cairo University applicants should have MBBCh and MS 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.

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#### B. Program duration: Two 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 2009 for post graduate programs, all the students should have a surgical training for 2 years.

#### e) Scientific Activities:

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

- Journal club (presenting scientific articles) once every two weeks.
- Seminars (including recent topics and controversial issues) once weekly. Students are expected to participate in the discussions.

- Scientific meetings arranged by the department.
- 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 basic and advanced trauma life support.

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.



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## C. Program Levels and Credit Points

### *Advanced training course*

The advanced training course obeys the Faculty of Medicine, Cairo University Bylaws for Post Graduate Programs (July 2009). All students should have a basic training for 2 years in their department.

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### *Scientific activities*

Each activity is monitored and given credit points registered in a special section in the logbook. Before sitting for final exam, the student should participate and collect the required points of activities as:

- Journal club once every one or two weeks.
  - Seminars (including recent topics and controversial issues) once weekly. Students are expected to participate in the discussions.
  - Scientific meetings arranged by the department
  - Attendance of Thesis discussions
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### *MD Thesis*

All master-degree students should prepare a thesis in the specialty. The department and the ethical committees must approve the protocol of the research. The thesis (should/may) include a review part and a research part. The thesis is supervised by one or more senior staff members and may include other specialties according to the nature of the research. The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor.

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D. Program Courses		
Code	Courses	Credit Points
<b>MD COURSES (2 YEARS)</b>		--- TCPS
<b>Compulsory courses</b>		-- CPs
	•	-- CPs
	•	-- CPs
	•	-- CPs
	•	-- CPs
	•	-- CPs
<b>Elective courses</b>		-- CPs
	•	-- CPs
	•	-- CPs
	•	-- CPs
	•	-- CPs
	<b>Scientific activities</b>	-- CPs
	<b>Advanced training course</b>	-- CPs
<b>MD THESIS</b>		--- CPS





## **E. Program Admission Requirements**

According to Bylaws of the Faculty of Medicine, Cairo University for the Post Graduate Programs (July 2009), applicants should have Master degree or equivalent accredit degree accredit of in the same specialty. Admission to the program is open during January and July. The training prior to registration may be accredited according to departmental and hospital evaluation.

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## **F. Regulations for Program Completion**

After collecting the required credit points for the respective courses, the advanced training course, and the scientific activities, the student will be eligible to sit for the final examination. Before submitting to the final examination, he/she should finish the MD thesis and get the approval.

In case the student fails to pass the written examination, he/she may resubmit for the next examination. After passing the written examination, the student is able to continue the oral and clinical and/or practical examinations. In case of failure in any of these exams, the student may resubmit for these latter exams without retaking the written examination. The candidate will receive his degree after passing this final examination. The MD degree should be obtained within a maximum of 6 years after registration date.

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<b>G. Program Assessment Methods and Regulations</b>					
<b>Code</b>	<b>Compulsory courses</b>	<b>Written</b>	<b>Oral</b>	<b>Practical</b>	<b>Total</b>
	•				
	•				
	•				
	•				
<b>Code</b>	<b>Elective courses</b>	<b>Written</b>	<b>Oral</b>	<b>Practical</b>	<b>Total</b>
	•				
	•				
	•				
	•				
<b>Total Marks</b>					

<b>Assessment Methods</b>	<b>Intended Learning Outcomes</b>
• <b>Written</b>	
• <b>Oral</b>	
• <b>Practical</b>	



## H. Methods for Program Evaluation

Evaluator	Tool	Sample
1. Senior Students	Questionnaire at the end of the program	All the PG students
2. Alumni	The faculty is currently developing an Alumni office for postgraduates	Not yet determined
3. Stakeholders	A meeting will be arranged during the annual conference of the department.	Representatives from <ul style="list-style-type: none"><li>• Army hospitals</li><li>• National medical insurance</li><li>• Medical syndicate</li><li>• Ministry of health</li></ul>
4. External Evaluators	Review the program and courses. Attend the final exam.	Once before implementation Bi-annual report
5. Quality Assurance unit	A committee will be formed headed by a senior professor and representatives of each surgical unit to monitor the learning process (trainees and trainers abiding by the training plan increments and log book in reality) and make the necessary adjustments. The committee will present its report to the council.	

*Program Supervisor*

Prof. Dr: Gamal Hassan ElTaggy

*Signatures*

*Date*