



PROGRAM SPECIFICATION Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Program Title & Code	Postgraduate degree of Pediatric Surgery
(2) Final award/degree	MD degree
(3) Department (s)	Pediatric Surgery
(4) Coordinator	Ass Prof. Adham Ahmad Elsaid Lect. Hesham Mahmoud Sheir
(5) External evaluator (s)	Prof. Gamal Eldin El-Tagy Prof. Sherif Shehata
(6) Date of approval by the Department`s council	8/8/2016

(B) Professional information

(1) Program aims:

The broad aims of the Program are as follows:

Advanced education in Pediatric Surgery along with advanced knowledge & skills in management, leadership, communications, & innovation thinking needed to address complex challenges in Pediatric Surgery.

Graduates of the program should be able to:

- (1) Apply the general anatomical, physiological and developmental knowledge and their special consideration in the pediatric age group.
- (2) Identify the disease processes of different surgical problems affecting pediatrics.
- (3) Practice different clinical skills to evaluate pediatrics with different surgical problems and deal in professional manner with emergencies in the pediatric age group.
- (4) Plan for management of different surgical problems of pediatrics and keep updated with guidelines and new innovations in pediatric surgery.
- (5) Use different surgical skills to perform different pediatric surgical procedures in safe, ethical and professional manner.
- (6) Implement evidence based practice, and cope with the future challenges through life-long learning and conducting the necessary medical research.
- (7) Communicate with patients and their parents and with colleagues from other specialties to provide effective management.

(2) Intended Learning Outcomes (ILOs):

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

On successful completion of the program, the candidate will be able to:

A- Knowledge & Understanding:

- A1:** Explain growth and development of the human body and the embryological background of surgically manageable congenital anomalies.
- A2:** Recognize principles of normal and abnormal anatomy and special anatomical considerations in pediatrics.
- A3:** Understand principles of general pathological processes responsible for different surgical diseases.
- A4:** Recognize the epidemiology, etiology and risk factors of different surgical diseases in pediatrics.
- A5:** Recognize different clinical presentations and variable signs required for diagnosis of different pediatric surgical diseases
- A6:** Predict and prevent possible complications of different pediatric surgical diseases and deal with neonatal and pediatric medical and surgical emergencies.
- A7:** Recognize the scientific basis and interpretation of common diagnostic studies with emphasis on their prioritization in management plans.
- A8:** Identify the principles and international guidelines and evidence-based perspectives & their role in guiding the management plan for pediatric surgical diseases.
- A9:** Recognize basic principles of general surgical skills and basic steps of different pediatric surgical procedures.
- A10:** Explain general principles of preoperative, operative and postoperative care.
- A11:** Recognize the principles of infection control in hospitals and within community.
- A12:** Understand the principles governing ethical decision making in clinical practice and the major ethical dilemmas in medicine, with its relevant medico-legal aspects.
- A13:** Recognize principles of inferential statistics.
- A14:** Understand principles of critical appraisal, systematic review & metaanalysis.
- A15:** Explain principles, components, recent trends & updates of communication.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Aim 1	•	•													
Aim 2			•	•											
Aim 3					•	•									
Aim 4							•	•		•					
Aim 5									•	•	•	•			
Aim 6													•	•	
Aim 7															•

B- Intellectual skills

- B1:** Interpret basic embryological knowledge to understand the theories of different congenital anomalies in pediatric surgery.
- B2:** Recognize the surgical importance of the anatomical background and correlate the anatomical knowledge to the surgical practice.
- B3:** Interpret theories of pathogenesis of different pediatric surgical diseases.
- B4:** Recognize the skills to obtain and document a complete or focused medical history in the outpatient, inpatient or emergency settings.
- B5:** Interpret patient's symptoms and physical signs in terms of anatomic, pathologic and functional diagnostic significances.
- B6:** Identify surgical problems and select the most appropriate and cost effective diagnostic procedures for each problem.
- B7:** Analyze different items of differential diagnoses of pediatric surgical problems with prioritization of the common possibilities for each problem.
- B8:** Compare different treatment options and weighs the pros and cons of the proposed interventions.
- B9:** Recognize patients with life / organ threatening conditions and institute first aid and initial therapy.
- B10:** Recognize the essential steps and surgical tips to avoid intraoperative complications of different pediatric surgical procedures.
- B11:** Apply principles of critical appraisal & evidence based medicine.
- B12:** Apply basic knowledge to design different types of researches.
- B13:** Apply principles of planning, staffing, managing & evaluation in different pediatric surgical problems.
- B14:** Estimate the communication skills required for different clinical and surgical situations.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Aim 1	•	•			•									
Aim 2			•		•									
Aim 3				•	•				•					
Aim 4						•	•	•	•					
Aim 5								•		•				
Aim 6											•	•		
Aim 7													•	•

C- Professional/practical skills

- C1:** Assess normal anatomy and apply anatomical knowledge on surgical practice.
- C2:** Differentiate between healthy and pathological tissues in different body systems.
- C3:** Obtain thorough clinical history that is well-directed towards the diagnostic purposes.
- C4:** Perform effective examination and elicit key signs for different pediatric surgical diseases.
- C5:** Analyze clinical investigations' findings in relation to possible courses of therapy including indications, risks, benefits and alternatives as well as plans for follow up.
- C6:** Write clear and concise medical records including: admission sheets, progress notes, and physician' orders, referrals for consultation, discharge summaries and follow up notes.
- C7:** Achieve consensus and obtain informed consent from the patient or the parents for the treatment plan.
- C8:** Perform independently various clinical and surgical procedures and know when and how to ask for senior consultation.
- C9:** Identify his/her personal weaknesses through accurate self-assessment and/or supervisors and colleagues and practice actively to address these weaknesses using the appropriate technological means.
- C10:** Update his/her knowledge utilizing the resources of biomedical information to improve his professional practice and to follow recent innovations in pediatric surgery.
- C11:** Formulate research hypothesis and design different types of researches.
- C12:** Conduct patient and/ or parents interviews in a professional manner that is well directed to the clinical purposes.

	1	2	3	4	5	6	7	8	9	10	11	12
Aim 1	•											
Aim 2		•										
Aim 3			•	•								
Aim 4					•	•	•			•		
Aim 5								•	•	•		
Aim 6										•	•	
Aim 7												•

D- Communication & Transferable skills

- D1:** Deliver compassionate and non-judgmental care for all patients with respect for their privacy and dignity.
- D2:** Treat the patient as a person, not as a disease and understand that patients are human beings with beliefs, values, goals and concerns which must be respected.
- D3:** Be aware of the ethical behavior expected of doctors towards patients with recognition of patients' rights, particularly with regard to confidentiality and informed consent.
- D4:** Attain the honesty and integrity in all interactions with patients, families, colleagues and others with whom the physician must interact in their professional life.
- D5:** Develop written & oral presentations skills for both pediatric surgery professionals & other audiences.
- D6:** Respect the role of other health care professionals, and the need to collaborate with others in caring of individual patients.
- D7:** Recognize her/his limits of knowledge and experience by communication with his supervisors and colleagues aiming to update and improve her/his current medical practice.

(3) Academic standards: (Benchmarks)

A table of comparison between the ARS, NARS and program ILOS is attached in [Appendix I](#).

(4) Curriculum structure & contents:

4a- Program duration: 3 years (6 Semesters)

4b - Program structure:

The program consists of 6 semesters;

The first part (semester 1); 15 weeks

The second part (semesters 2, 3, 4, 5 & 6) 75 weeks

المناهج			
الساعات المعتمدة	الكود	المقررات الدراسية	
٣	SUR 620 SA SUR 601	التشريح و علم الأجنة	الجزء الاول
٢	SUR 620 SSP SUR 605	الباثولوجيا الجراحية الخاصة	
١٥			الرسالة
٢١	PEDSUR 620	جراحة الأطفال	الجزء الثاني
٤	PEDSUR 620 NICU PEDSUR 620 MICS	يتم اختيار مادة واحدة من: ١ - العناية المركزة لحديثي الولادة. ٢ - الجراحات الميكروسكوبية.	مقررات اختيارية
١٥			كراسة النشاط
٦٠			المجموع

(5) Curriculum structure & contents:

a- Compulsory courses:

Code	Course title	No of hours		
		L	C	OR
SUR 620 SA SUR 601	Surgical anatomy and embryology	45		
SUR 620 SSP SUR 605	Special surgical pathology	30		
PEDSUR 620	Pediatric Surgery	255	240	270

b- Elective courses:

Code	Course title	No of hours		
		L	C	OR
PEDSUR 620 NICU	Neonatal intensive care	60		
PEDSUR 620 MICS	Microscopic surgery	60		

L: Lecture, C: Clinical and OR: Operating room

Program -Courses ILOs Matrix

Course Title/Code	A														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Surgical anatomy and embryology SUR 620 SA SUR 601	•	•													
Special surgical pathology SUR 620 SSP SUR 605			•	•											
Pediatric Surgery SUR 620					•	•	•	•	•	•	•	•	•	•	•
Neonatal intensive care PEDSUR 620 NICU						•	•	•		•	•	•			•
Microscopic surgery PEDSUR 620 MICS					•	•	•	•		•	•	•			•

Course Title/Code	B													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Surgical anatomy and embryology SUR 620 SA SUR 601	•	•			•									
Special surgical pathology SUR 620 SSP SUR 605			•		•									
Pediatric Surgery SUR 620				•	•	•	•	•	•	•	•	•	•	•
Neonatal intensive care PEDSUR 620 NICU				•	•			•	•		•		•	•
Microscopic surgery PEDSUR 620 MICS				•	•	•	•			•				•

Course Title/Code	C											
	1	2	3	4	5	6	7	8	9	10	11	12
Surgical anatomy and embryology SUR 620 SA SUR 601	•											
Special surgical pathology SUR 620 SSP SUR 605		•										
Pediatric Surgery SUR 620			•	•	•	•	•	•	•	•	•	•
Neonatal intensive care PEDSUR 620 NICU			•	•	•	•	•					•
Microscopic surgery PEDSUR 620 MICS			•	•	•	•	•		•	•		

Course Title/Code	D						
	1	2	3	4	5	6	7
Surgical anatomy and embryology SUR 620 SA SUR 601						•	
Special surgical pathology SUR 620 SSP SUR 605						•	
Pediatric Surgery SUR 620	•	•	•	•	•	•	•
Neonatal intensive care PEDSUR 620 NICU	•	•	•	•		•	
Microscopic surgery PEDSUR 620 MICS		•	•	•			

(6) Program admission requirements:

- **General requirements:** According to the faculty postgraduate bylaws.
- **Specific requirements (if applicable):** No specific requirements

(7) Regulations for progression & program completion:

- Student must complete minimum of 45 credit hours in order to obtain the MD degree, which include the courses of first & second parts, thesis & activities of the log book.
- Courses description are included.
- Registration for the MD thesis is allowed 6 months from the day of registration to the program & must fulfill a total of 8 credit hours including material collection, clinical and operative work, patients follow-up, & meetings with supervisors.

Log book fulfillment:

- Student must fulfill a minimum of 12 credit of log book activities.
- Lectures & seminars of the previously described courses must be documented in the log book & signed by the lecturer.
- Works related to thesis must be documented in the log book & signed by the supervisors.
- Any workshops, conferences & scientific meetings should be included in the log book.

Final exam:

First part

الدرجة			الاختبار	المقرر
إجمالي	تحريري	MCQ		
١٠٠	٨٠	٢٠	اختبار تحريري مدته ساعة ونصف	التشريح و علم الأجنة
١٠٠	٨٠	٢٠	اختبار تحريري مدته ساعة ونصف	الباثولوجيا الجراحية الخاصة
٢٠٠	إجمالي الدرجة			

- يتم تقييم الساعات المعتمدة بعقد امتحان في نهاية كل مقرر على هيئة MCQ بأشكاله المختلفة.

Second part:

إجمالي	الدرجة				الاختبار	المقرر	
	عملي	إكلينيكي	شفهي	تحريري			
٥٤٠	١٠٠	١٠٠	١٠٠	٩٠ + ٩٠	٦٠	اختباران تحريريان مدة كل منهما ثلاث ساعات + اختبار شفهي + اختبار إكلينيكي + اختبار عملي	جراحة الأطفال
٦٠				٦٠		اختبار تحريري مدة ساعة ونصف	(وصف حالة)
١٠٠				٨٠	٢٠	اختبار تحريري مدته ساعة و نصف	المقرر الاختياري
٧٠٠	إجمالي الدرجة						

- يتم تقييم الساعات المعتمدة بعقد امتحان في نهاية كل مقرر على هيئة MCQ بأشكاله المختلفة.

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

Evaluator	Tools*	Sample size
Internal evaluator (s) Prof.Dr. Mohammed El-Ghazaly Prof.Dr. Kamal Abd El-Elah Ass Prof.Dr. Adham El-Said	Focus group discussion	Not yet
External Evaluator (s) Prof. Gamal Eldin El-Tagy Prof. Sherif Shehata	Evaluation checklist	Not yet
Senior student (s)	None	Not yet
Alumni	None	Not yet
Stakeholder (s)	None	Not yet
Others	None	Not yet

* Tools= questionnaire, interview, workshop, communication, e-mail

We certify that all information required to deliver this program is contained in the above specification & will be implemented. All course specification for this program are in place.

Program coordinator: Ass Prof. Adham Ahmad Elsaid Lect. Hesham Mahmoud Sheir	Signature & date:
Head of the department: Prof. Dr. Mohamed El-Ghazaly Waly	Signature & date:
Dean: Prof. Dr. El Said Abdel Hady	Signature & date:
Executive director of the quality assurance unit: Prof. Dr. Seham Aly Gad El Hak	Signature & date: