



Program Specifications

Medical Doctorate in Pediatric Surgery

A- Basic Information

1. Program title: Doctorate degree in Pediatric Surgery .
2. Program type: Single .
3. Faculty: Faculty of Medicine .
4. Department: Pediatric Surgery Department .
5. Duration of Program: 3 years
5. Head of the Program: Head of Pediatric Surgery Department.
6. Coordinator: Prof .amin Abokifa
7. Assistant coordinators: Dr. Mohammad Daboos

B- Professional Information:

1. Program aims:

The aim of this program is to develop competent pediatric surgeons with high professional standards, who are well prepared to face, respond to, and solve various surgical problems in the pediatric age group (neonates, infants, children, and adolescents) . The graduate will be trained to implement evidence-based practice, and to cope with the future challenges through lifelong learning and conducting the necessary medical research . The program will support acquisition of basic knowledge of normal and abnormal growth and development (physical, physiologic, psychosocial), and its clinical application from birth through adolescence. The program will enable the development and application of appropriate professional attitudes, communication, and problem-solving skills to perform surgical interventions and deal with complications in the pediatric age group.



2. Intended learning outcomes (ILOs) :

a. Knowledge and understanding:

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

- a1. Recognize the normal growth and development of the human body, and the embryological background of surgically manageable congenital anomalies.
- a2. Recognize the surgical anatomy of various parts of the body with special considerations relevant to children at various age groups.
- a3. Recognize the surgical pathology of various diseases that require surgical intervention in pediatric age group.
- a4. Know the principles of genetics and its role in various surgical problems in children particularly in congenital anomalies, as well as, the basics of genetic counseling.
- a5. Recognize the principles and international guidelines of management of various congenital anomalies, traumatic, and other conditions in children.
- a6. The scientific basis and interpretation of common diagnostic studies with emphasis on their prioritization in management plans
- a7. Identify the principles of infection control in hospitals and within community.
- a8. Identify the principles governing ethical decision making in clinical practice and the major ethical dilemmas in medicine, with its relevant medico-legal aspects.
- a9. Recognize the Arabic medical terminology and its use in communicating medical information to patients, their relatives and authority.
- a10. Use The Basic computer knowledge needed to support literature retrieval and learning.



a11. Design the basic principles of medical statistics, research methodology, and critical evaluation of evidence.

a12. Recognize the global Egyptian national health care system

b. Intellectual capabilities:

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

b1. Obtain and document a complete or focused medical history in the outpatient, inpatient or emergency settings.

b2. Perform and document a complete or focused physical and mental examination.

b3. Interpret patient's symptoms and physical signs in terms of anatomic, pathologic, and functional diagnostic significances.

b4. Identify problems and select the most appropriate and cost-effective diagnostic procedures for each problem.

b5. Interpret the results of commonly used diagnostic procedures (laboratory and radiological) .

b6. List a differential diagnosis with prioritization of the common possibilities for each problem.

b7. Exhibit a clinical decision analysis skill that weights the pros and cons of the proposed interventions.

b8. Recognize patients with life / organ threatening conditions and institute first aid and initial therapy.

b9. Apply principles of sterilization and infection control regulations on hospital and community levels.

b10. Perform independently various clinical procedures.

b11. Recognize the essential steps and possible complications of common interventions.



c. Professional and practical skills :

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

- c1. Conduct patient and/ or parents' interviews that are characterized by patience and attentive listening.
- c2. Perform verbal and written communication with patients and/or their parents and colleagues with competence.
- c3. Explain to patients and their families the clinical investigations findings in relation to possible courses of therapy including indications, risks, benefits, and alternatives as well as plans for follow up.
- c4. Achieve consensus and obtain informed consent from the patient or the parents for the treatment plan.
- c5. Know when and how to ask for senior consultation.
- c6. Give accurate and clear oral summaries of the patient's illness.
- c7. Work collaboratively with other health professionals in other disciplines to maximize patient benefits and minimize the risk of errors.
- c8. Write clear and concise medical records including admission sheets, progress notes, and physician' orders, referrals for consultation, discharge summaries and follow up notes.
- c9. Identify his/her personal weaknesses through accurate self-assessment and/or supervisors and colleagues and actively set a clear learning plan to address these weaknesses.
- c10. Utilize the resources of biomedical information including the available electronic facilities to update his/her knowledge.

d. General and transferable skills :

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

- d1. Deliver compassionate and non-judgmental care for all patients with respect for their privacy and dignity.



- d2. Be aware of the ethical behavior expected of doctors towards patients with recognition of patients' rights, particularly regarding confidentiality and informed consent.
- d3. Attain the honesty and integrity in all interactions with patients, families, colleagues, and others with whom the physician must interact in their professional life .
- d4. Be aware of potential conflicts of interest that may arise in caring of the patients and a commitment to advocate the interest of one's patients over one's own interests at all times (physician must be altruistic) .
- d5. 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.
- d6. Maintain a professional image in manner, dress, speech, and interpersonal relationships that is consistent with the accepted contemporary medical profession standards.
- d7. Provide care to patients who are unable to pay and advocate access to health care for members of the underserved populations.
- d8. Respect the role of other health care professionals, and the need to collaborate with others in caring of individual patients.
- d9. Recognize her/his limits of knowledge and experience.
- d10. Do continued self-assessment of their current medical practice aiming to update and improve it.



3. Academic standards:

The MD program in Pediatric Surgery will comply with local, national, and international Academic standards issued by the following authorities and organizations.

- The Board of Pediatric Surgery, Faculty of Medicine, Al-Azhar University.
- The Board of Department of Surgery, Faculty of Medicine, Al-Azhar University.
- Postgraduate Education & Research committee, Faculty of Medicine, Al-Azhar University.
- The Council of the Faculty of Medicine, Al-Azhar University.
- Postgraduate Education & Research committee, Al-Azhar University.
- The Council of Al-Azhar University.
- Egyptian Pediatric Surgical Association (EPSA).
- Saudi Board of Pediatric Surgery.
- Pan Arab Association of Pediatric Surgery .
- Pan African Association of Pediatric Surgery.
- Egyptian Board of Pediatric Surgery.
- European Association of pediatric Surgeons (EUPSA).
- American Academy of Pediatrics (AAP).
- Medical Sector of Ministry of High Education, ARE.



4. External References for Standards (Bench mark)

- Faculty of Medicine Ain Shams University
- Pediatric Surgery Fellowship, Royal College of surgeons
- European board of pediatric surgery

5. Program Structure and Contents

Medical Doctorate in Pediatric Surgery.

(Ped. S. 1000)

Compulsory Courses.

		code	Credit Hours
1	Pediatric and neonatal general and laparoscopic surgery <ul style="list-style-type: none"> • General Pediatric and Neonatal Surgery. (2 Credit Hours) • Pediatric and Neonatal Head and Neck Surgery. (2 Credit Hours) • Pediatric and Neonatal Gastrointestinal Surgery. (5 Credit Hours) • Pediatric and Neonatal Neurosurgery. (1/2 Credit Hours) • Pediatric and Neonatal Orthopedic Surgery. (1/2 Credit Hours) • Pediatric and Neonatal Oncologic Surgery. (1/2 Credit Hours) • Pediatric and Neonatal Minimally Invasive Surgery. (1/2 Credit Hours) • Pediatric and Neonatal Traumatology. (1 Credit Hours) 	Ped. S. 10001	12
2	Pediatric Genito Urological surgery	Ped. S. 10002	4
3	Pediatric Plastic and Reconstructive surgery	Ped. S. 10003	2
4	Pediatric Thoracic surgery	Ped. S. 10004	2
5	General Principles of Pediatrics and Neonatal medicine	Ped. S. 10005	1
6	General Principles of Pediatrics and Neonatal Intensive care	Ped. S. 10006	1
7	Pediatric Surgical anatomy and Pathology	Ped. S. 10007	6



Elective Courses

		Code	Credit Hours
1	Medical ethics	E10003	2
2	Medical Genetics	E100048	
3	Molecular Biology	E10001	
4	Child psychology and mental health	E1000122	
5	Hospital administration	E100017	

Training Program

- According to bylaws for post graduate programs, all the students should have a surgical training for 2 years.

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 scientific discussions.
- Scientific meetings arranged by the department.
- Attendance of Thesis discussions (2 per year).
- Courses in basic and advanced laparoscopy, stapling, sutures
- 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.



C-Teaching Methods

	M.D Pediatric surgery Compulsory courses	Methods of Education
1	Pediatric and neonatal general and laparoscopic surgery	<ul style="list-style-type: none"> -Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion -Simulation based learning (SBL). -Social media and video lectures (e-learning). These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era. -Observational learning. for Surgical procedures. -Peer assisted learning. for Surgical procedures.
2	Pediatric Genito Urological surgery	<ul style="list-style-type: none"> Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion -Simulation based learning (SBL). -Social media and video lectures (e-learning). These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era. -Observational learning. for Surgical procedures. -Peer assisted learning. for Surgical procedures.
3	Pediatric Plastic and Reconstructive surgery	<ul style="list-style-type: none"> -Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion



		<ul style="list-style-type: none"> -Simulation based learning (SBL). -Social media and video lectures (e-learning). These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era. -Observational learning. for Surgical procedures. -Peer assisted learning. for Surgical procedures.
4	Pediatric Thoracic surgery	<p>Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS)</p> <ul style="list-style-type: none"> -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion -Simulation based learning (SBL). -Social media and video lectures (e-learning). These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era. -Observational learning. for Surgical procedures. -Peer assisted learning. for Surgical procedures.
5	General Principles of Pediatrics and Neonatal medicine	<p>Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS)</p> <ul style="list-style-type: none"> -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion -Simulation based learning (SBL). -Social media and video lectures (e-learning). These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era.
6	General Principles of Pediatrics and Neonatal Intensive care	<ul style="list-style-type: none"> -Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Case based learning (CBL) -Problem based learning (PBL) -Group discussion and open discussion -Simulation based learning (SBL).



		-Social media and video lectures (e-learning): These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era.
7	Pediatric Surgical anatomy and Pathology	-Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Simulation based learning (SBL). -Social media and video lectures (e-learning): These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era.
	Elective Courses	Methods of Educations
1	Medical ethics	-Academic lectures.- each lectures should have (objectives, pre and after test and its ILOS) -Simulation based learning (SBL). -Social media and video lectures (e-learning): These online communities are helpful to circulate information, thoughts, and various other contents also this method was very helpful during Covid-19 Pandemic Era.
2	Medical Genetics	
3	Molecular Biology	
4	Child psychology and mental health	
5	Hospital administration	

D-Program admission requirements

According to Bylaws of the Faculty of Medicine, Cairo University for the Post Graduate Programs .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.



Student Assessment Methods

4.1 written exam to assess knowledge, understanding and skills (, Short essay and problem-solving Q -MCQs)

4.2 Practical exam to assess operative skills.

4.3 Oral exam to assess Knowledge, General and transferable skills

4.4 Clinical exam to assess understanding and clinical skills.

Weighing of assessment

4.1 written exam

4.2 Practical

4.2 oral exams

4.4 Clinical exam

G. Program Evaluation methods:-

Evaluator	Tool	Sample
Senior Students	Questionnaire at the end of the program	All the Pediatric surgery students
Stakeholders	A meeting arranged during the annual conference of the department.	Representatives from -National medical insurance -Medical syndicate -Ministry of health
External Evaluators	-Review the program and courses. -Attend the final exam.	-Once before implementation -annual report
Quality Assurance committee	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.	

رئيس قسم جراحة الأطفال

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