



Faculty of Medicine  
Quality Assurance Unit

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***Medical Doctorate (M.D.) Degree Program  
and Courses Specifications for **Pediatric  
Surgery*****

**(According to currently applied Credit points bylaws)**

***Pediatric Surgery  
Faculty of medicine  
Assiut University  
2021-2022/2023-2024***

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Assiut University  
Faculty of Medicine  
Quality Assurance Unit (QAU)



## M. D. degree of *Pediatric Surgery*

### A. Basic Information

- + Program Title: *Pediatric Surgery*
- + Nature of the program: Single.
- + Responsible Department: *Pediatric Surgery*
- + Program Academic Director (Head of the Department):  
Prof. Amoutaz A. Eltayeb
- + Coordinator (s):  
Principle coordinator: Prof. Amoutaz A. Eltayeb  
- Assistant coordinator (s) : Prof. Ibrahim Ali Ibrahim
- + Internal evaluators: Prof. Mahmoud Mohamed Mostafa.
- + External evaluator: Prof Gamal Altagy
- + Date of Approval by the Faculty of Medicine Council of Assiut University: 23-6-2013
  
- + Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University: 27-11-2022
  
- + Total number of courses: 6 courses+ 2 elective courses

## B. Professional Information

### 1- Program aims

**1/1.** 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).

**1/2.** To train the graduate to implement evidence based practice, and to cope with the future challenges through life long learning and conducting the necessary medical research.

**1/3.** Support acquisition of basic knowledge of normal and abnormal growth and development (physical, physiologic, psychosocial), and its clinical application from birth through adolescence.

**1/4.** Enable the candidates the development and application of appropriate professional attitudes, communication and problem solving skills.

1/5 To enable candidates to describe the basic ethical and medicolegal principles relevant to Pediatric Surgery.

1/6 Facilitate the obtaining of the Consultant Degree in Pediatric Surgery and recognized abroad.

### 2-Intended learning outcomes (ILOs) *for the whole program:*

#### **2/1 Knowledge and understanding:**

A. Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio – behavioral science relevant to **Pediatric Surgery** as well as the evidence – based application of this knowledge to patient care.

- B. Explain basics, methodology, tools and ethics of scientific medical, clinical research.
- C. Mention ethical, medico logical principles and bylaws relevant to his practice **in the field of Pediatric Surgery.**
- D. Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of the **Pediatric Surgery.**
- E. Mention health care system, public health and health policy, issues relevant to this speciality and principles and methods of system – based improvement of patient care in common health problems of the **Pediatric Surgery.**

## **2/2 Intellectual outcomes**

- A. Apply the basic and clinically supportive sciences which are appropriate to the speciality related conditions / problem / topics.
- B. Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical situation related to **Pediatric Surgery.**
- C. Plan research projects.
- D. Write scientific papers.
- E. Participate in clinical risk management as a part of clinical governance.
- F. Plan for quality improvement in the field of medical education and clinical practice in **Pediatric Surgery.**
- G. Create / innovate plans, systems, and other issues for improvement of performance in **Pediatric Surgery.**

- H. Present and defend his / her data in front of a panel of experts.
- I. Formulate management plans and alternative decisions in different situations in the field of **Pediatric Surgery**.

### **2/3 Skills**

#### **2/3/1 Practical skills (Patient Care)**

- A. Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. *p.s.* Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice.
- B. provides extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to **Pediatric Surgery**.
- C. provides extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care.
- D. Perform diagnostic and therapeutic procedures considered essential in **Pediatric Surgery**.
- E. Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.
- F. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in **Pediatric Surgery** related situations.
- G, Gather essential and accurate information about patients of **Pediatric Surgery** related conditions.

- H. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for **Pediatric Surgery** related conditions.
- I. Develop and carry out patient management plans for **Pediatric Surgery** related conditions.
- J. Counsel and educate patients and their families about speciality related conditions.
- K. Use information technology to support patient care decisions and patient education in all **Pediatric Surgery** related clinical situations.
- L. Perform competently all medical and invasive procedures considered essential for **Pediatric Surgery** related conditions / area of practices.
- M. Provide health care services aimed at preventing **Pediatric Surgery** related health problems.
- N. Lead health care professionals, including those from other disciplines, to provide patient-focused care in **Pediatric Surgery** related conditions.
- O. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)

## 2/3/2 General skills

### Including:

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

### Practice-Based Learning and Improvement

- A. Demonstrate the competency of **continuous evaluation of different types of care provision** to patients in the different area of his field
- B. Appraise scientific evidence.
- C. Continuously improve patient care based on constant self-evaluation and life-long learning.
- D. Participate in clinical audit and research projects.
- E. Practice skills of evidence-based Medicine (EBM).
- F. Educate and evaluate students, residents and other health professionals.
- G. Design logbooks.
- H. Design clinical guidelines and standard protocols of management.
- I. Appraise evidence from scientific studies related to the patients' health problems.
- J. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.



K. Use information technology to manage information, access on-line medical information; for the important topics.

### **Interpersonal and Communication Skills**

L. Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:-

- Present a case.
- Write a consultation note.
- Inform patients of a diagnosis and therapeutic plan completing and maintaining comprehensive.
- Timely and legible medical records.
- Teamwork skills.

M. Create and sustain a therapeutic and ethically sound relationship with patients.

N. Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.

O. Work effectively with others as a member or leader of a health care team or other professional group.

### **Professionalism**

P. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.

Q. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of

patient information, informed consent, and business practices.

R. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.

### **Systems-Based Practice**

S. Work effectively in health care delivery settings and systems related to **Pediatric Surgery** including good administrative and time management.

T. Practice cost-effective health care and resource allocation that does not compromise quality of care.

U. Advocate for quality patient care and assist patients in dealing with system complexities.

V. Design, monitor and evaluate specification of under and post graduate course and programs.

W. Act as a chair man for scientific meetings including time management.

### **3- Program Academic Reference Standards (ARS) (Annex 2)**

#### **Academic standards for Medical Doctorate (MD) degree in Pediatric Surgery**

Assiut Faculty of Medicine developed MD degree programs' academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted.

These standards set out the graduate attributes and academic

characteristics that are expected to be achieved by the end of the program. These standards were approved by the faculty council on 20/ 3/2010. These standards were revised and approved without changes by the Faculty Council on 23-9-2014. These standards were re-revised and approved without changes by the Faculty Council on 27-11-2022.

#### 4- Program External References( Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical Education).
2. Scientific principles and practice of pediatric surgery, other Pediatric surgery books, pediatric surgical courses of Harvard medical school.
3. Ain shams MD program.
4. American board of pediatric surgery  
<http://www.absurgery.org/default.jsp?aboutpediatricsurgerydefined>
5. Egyptian association of pediatric surgery. <http://epsa-eg.org/>

#### 5- Program Structure

- A. Duration of program: 4-6 years
- B. Structure of the program:
- Total number of credit point = 420 CP
- Master degree:** 180 credit point
- Didactic #:** 37 (23.1%), practical 123 (76.9%), total 160 CP
- Thesis and researches: 80 CP (33.3%)
- First part
- Didactic 10 CP ( 100 %), practical 0( 0 %).total 10 CP
- Second part
- Didactic 24 , ( 16.3 %) practical 123 ( 83.7 %) total 147
- According the currently applied bylaws:
- Total courses:160 credit point
- Compulsory courses: 157 credit point (98.1%)
- Elective courses: 3 credit point (1.9%)

	Credit points	% from total
Basic science courses	10	4.1%
Humanity and social courses	3	1.2%
Speciality courses	147	61.3%
Others ( Computer, ...)		0
Field training	123	51.3%
Thesis	40	16.7%
2 published researches	40	16.7%

### **C- Program Time Table**

Duration of program 4 years (could be extended at maximum to 6 years) divided into

○ Part 1

Program-related basic science courses

- Medical statistic
- Research methodology
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Students are allowed to sit the exams of these courses after 6 months from applying to the M D degree.

Students are allowed to sit the exams of the remaining basic science courses after 12 months from applying to the MD degree.

○ Thesis and 2 published researches

For the M D thesis;

MD thesis subject should be officially registered within 1 year from application to the MD degree,

Discussion and acceptance of the thesis should not be set before 24 months from registering the M D subject;

It could be discussed and accepted either before or after passing the second part of examination

- Part 2

Program –related speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 4 years from applying to the MD degree.

Two elective courses can be set during either the 1<sup>st</sup> or 2<sup>nd</sup> parts.

The students pass if they get 50% from the written exams and 60% from oral exams, 60% from clinical /practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course

Total degrees 1700 marks.

500 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical /practical and oral exams 30% - 60%.

## D- Curriculum Structure: (Courses):

### Levels and courses of the program:

courses	Course Code	Core Credit points		
		Lectures	training	total
<b>First Part</b>				
<b>Basic science courses (10 CP)</b>				
Course 1: Medical Statistics and computer	FAC309A	1	-	1
Course 2: Research Methodology	FAC309B	1	-	1
Course 3: - Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	FAC310C	1	-	1
Course 4 Surgical Anatomy and Embryology	<b>PSU 311A</b>	3.5	-	3.5
Course 5 Surgical Pathology	<b>PSU 311B</b>	3.5	-	3.5
<b>Elective courses*</b>	3 CP			
- Elective course 1				
- Elective course 2				
<b>Thesis</b>	40 CP			
<b>Published researches**</b>	40 CP			
<b>Second Part</b>	Speciality courses 24 CP Speciality Clinical Work (log Book) 123 CP			
Speciality Courses 1) Course 6 Pediatric Surgery	<b>PSU 311C</b>	24		
<b>Speciality Clinical Work (123 CP)</b>			123	
<b>Total</b>		<b>24</b>	<b>123</b>	<b>147</b>

\* Elective courses can be taken during either the 1<sup>st</sup> or 2<sup>nd</sup> parts.

#### **Student work load calculation:**

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

### Elective Courses#:

- Advanced medical statistics.
- Evidence based medicine.
- Advanced infection control.
- Quality assurance of medical education.
- Quality assurance of clinical practice.
- -Hospital management

# Two of the above mentioned courses are prerequisites for fulfillment of the degree.

### 3. Thesis / Researches:

40 CP are appointed to the completion and acceptance of the thesis.

\*\* Another 40 points are appointed to acceptance or publication of one research from the thesis in international indexed medical journals or publication of 2 researches from the thesis in local specialized medical journals.

### Pediatric Surgery Course:

Units' Titles' list	% from total Marks
1) Unit (Module) 1 General	10%
2) Unit (Module) 2 Head and neck	15%
3) Unit (Module) 3 Thorax	10%
4) Unit (Module) 4 Abdomen	30%
5) Unit (Module) 5 Genitourinary	15 %
6) Unit (Module) 6 Skin, Soft tissues, Blood vessels	10 %
7) Unit (Module) 7 Major tumors of Childhood	10 %
Total No. of Units (7 Modules):	100%

## 6. Courses Contents (Annex 1)

The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.

See Annex 1 for detailed specifications for each course/ module  
Annex 6 II: Program Matrix

## 7-Admission requirements

 Admission Requirements (prerequisites) if any :

I. General Requirements:

- Master degree in general Surgery with at least grade “good”.

II. Specific Requirements:

- Fluent in English (study language)

Student must be graduated from Egyptian universities with grade “good”


### VACATIONS AND STUDY LEAVE

The current departmental policy is to give working Assistant lectures two weeks leave prior to first/ second part exams.

### FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

## 8-Progression and completion requirements

 Examinations of the first part (Medical statistic, Research methodology and Medicolegal Aspects and Ethics in Medical Practice and Scientific Research) could be set at 6 months from registering to the MD degree.



- + Students are allowed to sit the exams of the remaining Basic science courses of the first part after 12 months from applying to the MD degree.
- + Examination of the second part cannot be set before 4 years from registering to the degree.
- + Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, either before or after setting the second part exams.
- + The minimum duration of the program is 4 years.

**The students are offered the degree when:**

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Completing all scheduled CP and log book (minimum 80%).
3. Discussion and acceptance of the MD thesis.
4. Acceptance or publication of one research from the thesis in international indexed medical journals or publication of 2 researches from the thesis in local specialized medical journals.

**9-Program assessment methods and rules (Annex IV)**

<b>Method</b>	<b>ILOs measured</b>
<b>Written examinations:</b> <b>Structured essay questions</b> <b>Objective questions:</b> <b>MCQ</b> <b>Problem solving</b>	<b>K &amp; I</b>
<b>Clinical:</b> <b>Long/short cases</b> <b>OSCE</b>	<b>K ,I, P &amp;G skills</b>
<b>Structured oral</b>	<b>K ,I &amp;G skills</b>
<b>Logbook assessment</b>	<b>All</b>
<b>Research assignment</b>	<b>I &amp;G skills</b>

### Weighting of assessments:

Courses	Degrees					
First Part	Course code	Written Exam	Oral *	Practical and clinical	Total	
Basic science courses:						
Medical Statistics	FAC309A	35	15	-	50	
Research Methodology	FAC309B	35	15	-	50	
Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	FAC310C	35	15	-	50	
Surgical Anatomy and Embryology	PSU 311A	100	50	25	175	
Surgical Pathology	PSU 311B	100	50	25	175	
<b>Second Part</b>						
	Course code	written	Oral	Practical	clinical	total
<i>Speciality Courses</i>						
Course 6 (Pediatric Surgery)	PSU 311C		300	300		
Paper 1		150				
Paper 2		150				
Paper 3		150				
Paper 4		150				
Total of second part		600	300	300		1200
Elective course 1		50		50		100
Elective course 2		50		50		100

\* 25% of the oral exam for assessment of logbook

**Total degree 1900**

**500 marks for first part**

**1200 for second part**

**Written exam 50 % (600 marks).**

**Clinical /practical and oral exams 50 % (600 marks)**

**+ Examination system:**

➤ **First part:**

- Written exam 2 hours in Medical Statistics and Research Methodology + oral examination
- Written exam 1 hours in Medicolegal Aspects and Ethics in Medical Practice and Scientific Research + oral examination
- Written examination in Surgical Anatomy and Embryology ( 3 hour) in Surgical Anatomy and Embryology + oral exam+ practical exam
- Written examination in Surgical Pathology ( 3 hour) +oral exam+ practical exam.
- **Second part:**
  - Written exam 4 papers 3 hours for each in Pediatric Surgery + Oral exam+ Clinical exam
- **Elective courses**
  - Written exam one paper 1 hour in Elective course 1 + Oral & Practical exam
  - Written exam one paper 1 hour in Elective course 2 + Oral & Practical exam

**10-Program evaluation**

<b>By whom</b>	<b>method</b>	<b>sample</b>
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

**#Annex 5 contains evaluation templates and reports (Joined in the departmental folder).**

**11-Declaration**

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

<b>Contributor</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
▪ <b>Program Principle Coordinator:</b>	<b>Prof. Amoutaz A. Eltayeb</b>		
▪ <b>Head of the Responsible Department (Program Academic Director):</b>	<b>Prof. Amoutaz A. Eltayeb</b>		

# Annex 1, Specifications for Courses / Modules

## Annex 1: specifications for courses/ modules

### First Part

- 1) Course 1: Medical statistics
- 2) Course 2: Research Methodology
- 3) Course 3: - Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- 4) Course 4 Surgical anatomy and Embryology
- 5) Course 5 Surgical pathology

### Course 1: Medical statistics

***Name of department: Public Health and Community Medicine***  
***Faculty of medicine***  
***Assiut University***  
***2022-2023***

#### 1. Course data

- + Course Title: Medical statistics
- + Course code: FAC309A
- + Specialty: offered to all clinical and academic specialties
- + Number of credit points: 1 credit point
- + Department (s) delivering the course: Pubic Health and Community Medicine
- + Coordinator (s):
  - Course coordinator: Prof. Farag Mohammed Moftah
  - Assistant coordinator (s):  
Prof. Medhat Araby Khalil Saleh
- + Date last reviewed: January -2022
- + Requirements (pre-requisites) if any:
  - Completed Master degree in any of the academic or clinical departments of Medicine.

## 2. Course Aims

Enable graduate students to use statistical principles to improve their professional work and develop the concept of critical interpretation of data

## 3. Intended learning outcomes (ILOs): To be able to use statistical principals to manage data

### A knowledge and understanding

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. List the types of variables	Lecture and discussion	Written examination
B. Identify the methods of data collection	Lecture and discussion	Written examination
C. Describe the different sampling strategies	Lecture and discussion	Written examination
D. Identify types of tabular and graphic presentation of data	Lecture and discussion	Written examination
E. Identify measures of central tendency and dispersion	Lecture and discussion	Written examination
F. Identify the characters of normal distribution curve.	Lecture and discussion	Written examination
G. Detect the difference between parametric and non-parametric tests	Lecture and discussion	Written examination
H. Identify the concepts of correlation and regression	Lecture and discussion	Written examination

## B. intellectual

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the normal curves.	Lecture & Discussions	Written examination
B. Describe and summarize data	Lecture & Discussions	Written examination
C. Select the proper test of significance	Lecture & Discussions	Written examination
D. Interpret the proper test of significance	Lecture & Discussions	Written examination
E. Describe the difference between parametric and non-parametric tests	Lecture & Discussions	Written examination

## C. Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design data entry files.	Tutorial on SPSS	Assignments SPSS exam
B. Validate data entry.	Tutorial on SPSS	Assignments SPSS exam
C. Manage data files.	Tutorial on SPSS	Assignments SPSS exam
D. Construct tables and graphs.	Tutorial on SPSS	Assignments SPSS exam
E. Calculate measures of central tendency and dispersion.	Tutorial on SPSS	Assignments SPSS exam
F. Select, apply and interpret the proper test of significance.	Tutorial on SPSS	Assignments SPSS exam



## D general skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Appraise scientific evidence	Discussions	Research assignment
B. Use information technology to manage information, access on-line medical information; for the important topics.	tutorial	Research and audits' assignment

**4. Course contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: First Part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Introduction	A-F	A-D	-	A&B
Tables and graphics	D	A-D	-	A&B
Sampling	C	-	-	A&B
Methodology of data collection	B	-	-	A&B
Type of variables	A	-	-	A&B
Proportion test& Chi-square test	E,F	C&D	-	A&B
Student T test& Paired T test	E,F	C&D	F	A&B
ANOVA test	E,F	C&D	F	A&B
Non parametric tests	E,F	C&D	F	A&B
Discrimination analysis factor analysis	E,F	C&D	-	A&B
SPSS Introduction	A-F	A-D	-	A&B
Data entry and cleaning of data	A	A-D	A-C	A&B
Transforming of variables	A	A&B	A-C	A&B
Descriptive statistics	D	A-D	D&E	A&B
Graphic presentation	D	A&B	D	A&B
Chi square and interpretation of results	E,F	C&D	F	A&B
Correlation Regression	E,F	C&D	F	A&B
Multiple and logistic Regression	E,F	C&D	F	A&B

## 5. Course Methods of teaching/learning

1. Lectures
2. Assignments
3. Discussions
4. Exercises
5. Tutorial on SPSS v.16

## 6. Course assessment methods:

### i. Assessment tools:

1. Attendance and active participation
2. Assignment
3. Practical SPSS examination
4. Written exam

ii. **Time schedule:** After 6 months from applying to the M D degree.

iii. **Marks:** 50 (35 for written exam and 15 for practical exam).

## 7. List of references

### i. Lectures notes

Department lecture notes

### ii. Essential books

- Medical Statistics: Book by Ramakrishna HK 2016
- Janet Peacock and Philip Peacock. Oxford Handbook of Medical Statistics (second edition.) Publisher: Oxford University Press, Print Publication Date: Nov 2010 Print ISBN-13: 9780199551286, Published online: Jun 2011. DOI: 10.1093/med/9780199551286.001.0001
- Leslie E. Daly MSc, PhD, Hon MFPHM,, Geoffrey J. Bourke MA, MD, FRCPI, FFPHM, FFPHMI, Interpretation and Uses of Medical Statistics, Fifth Edition, First published:1 January 2000, Print ISBN:9780632047635 |Online ISBN:9780470696750 |DOI:10.1002/9780470696750
- Marcello Pagano, Kimberlee Gauvreau: Principles of Biostatistics second edition published in 2000 by Brooks/Cole and then Cengage Learning. CRC Press, Feb 19, 2018 - Mathematics - 584 pages.

### iii- Recommended books

- Ji-Qian Fang (Sun Yat-Sen University, China) Handbook of Medical Statistics: <https://doi.org/10.1142/10259> | September 2017.Pages: 852

- Robert H. Riffenburgh: Statistics in Medicine 4th Edition (2020). Evidence Based Medicine How to practice and teach EBM.
- Discovering Statistics Using IBM SPSS Book by Andy Field, 2013.

**iii. Periodicals, Web sites, etc**

iv. **Periodicals , etc** Statistics in Medicine - Wiley Online Library

v. **Web sites** <https://www.phc.ox.ac.uk/research/medical-statistics>

**8. Signatures**

<b>Course Coordinator:</b> - Farag Mohammed Moftah	<b>Head of the Department:</b> - Prof. Eman Morsy Mohamed
<b>Date:</b> 10-1-2022	<b>Date:</b> 10-1-2022
<b>Associated Coordinator:</b> Prof. Medhat Araby Khalil Saleh	
<b>Date:</b> 10-1-2022	

## Course 2: Research Methodology

**Name of department:** *Public Health and Community Medicine*  
**Faculty of medicine**  
**Assiut University**  
**2021-2022**

### 1. Course data

- + Course Title: Research methodology
- + Course code: FAC309B
- + Specialty: Offered to all clinical and academic specialties
- + Number of credit points: 1 credit point
- + Department (s) delivering the course: Department of public health
- + Coordinator (s):
  - Course coordinator: Prof. Mahmoud Attia
- Assistant coordinator (s): Prof. Ekram Mohamed
  - Prof. Medhat Araby Khalil
- + Date last reviewed: January 2022
- + Requirements (prerequisites) if any:
  - Completed Master degree in any of the academic or clinical departments of Medicine.

## 2. Course Aims

To provide graduate students with the skills of:

- planning and implementing sound research
- writing a scientific research proposal

## 3. Intended learning outcomes (ILOs)

### A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain differences between different study designs.	Lecture and discussion Practical sessions Workshops	Written exam Log book assignments Practical exam
B. Identify sources and types of bias in research.	Lecture and discussion Practical sessions	Written exam Log book assignments Practical exam
C. Identify methods of data collection.	Lecture and discussion Practical sessions	Written exam Log book assignments
D. Select and design valid measurement tools for research.	Lecture and discussion Practical sessions Workshops	Written exam Log book assignments Practical exam
E. Explain ethical issues in conducting research on human subjects.	Lecture and discussion Practical sessions Workshops	Written exam Log book assignments
F. List the steps involved in proposal writing.	Lecture and discussion Practical sessions	Written exam Log book assignments

	Workshops	Practical exam
G. Identify a research problem within a conceptual framework.	Lecture Discussion	Written exam Log book assignments Practical exam
H. Use the web sources to do a literature search	Practical tutorial on web	Log book assignment
I. Describe the rules of authorship in scientific writing.	Lecture and discussion Practical sessions Workshops	Written exam Log book assignments
J. Select the appropriate study design for the research question.	Lecture Practical sessions	Written exam Practical exam
K. Minimize bias in designing research.	Lecture	Written exam
L. Screening & theoretical background	Lectures	Written exam Practical exam
M. Mention the basic ethics for conducting a research and medicolegal principles relevant to data confidentiality.	lectures seminar	Written exam Practical exam

## B. intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A- Apply basic science & knowledge for appraising scientific literature.	Discussions & seminars	Written exam Practical exam
B- Design research and present study data, in seminars.	lecture seminar	log book assignments
C- Design suitable epidemiological study.	lecture seminar	log book assignments
D- Design strategies for resolving ethical concerns in research, law, and regulations.	lecture Workshops	Written exam log book

		assignments
E- Apply coherently synthesize ideas and integrate lateral and vertical thinking.	lecture Workshops	log book assignments
F- Evaluate screening tests and interpreting their uses in different population.	lecture	Written exam Practical exam

### C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A- Conduct epidemiological studies, screening and surveys.	lectures seminar	written exam log book assignments
B- Identify steps required in fielding the study.	Lecture	Assignments Written exam
C- Managing data collection team.	lectures seminar	log book assignments
D- Identify steps required for calculation sensitivity, specificity, positive predictive value, negative predictive value, accuracy of a screening test.	Lecture Practical sessions	Assignments Written exam Practical exam
E- Be able to define and apply the epidemiologic criteria of causality and be able to distinguish between a measure of association and evidence of causality.	Lecture Practical sessions	Assignments Written exam Practical exam
F- Synthesize information from multiple sources for research writing and the ability to perform paper critique .	Lecture Practical sessions	Assignments Written exam Practical exam
G- Identify bias and confounding in epidemiological study designs, their types and ways to control them in various types of biases.	Lecture Practical sessions	Assignments Written exam Practical exam



## D General skills

### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Scientific paper and proposal writing skills: be able to write an introduction, objectives and the methodological section.	Tutorial	Written examination
B- Learn authorship ethical rules.	Tutorial	Written examination
C- Perform practice-based improvement activities using a systematic methodology (audit, logbook, critical appraisal)	- Lectures - Practical sessions - Discussion - Readings	critical appraisal
D- Appraise evidence from scientific studies(journal club)	- Lectures - Practical sessions - Discussion - Readings	critical appraisal
E- Conduct epidemiological studies, screening and surveys.	- Lectures - Practical sessions - Discussion - Readings	attendance and participation
F- Facilitate training of junior students and other health care professionals in different screening activities.	Field work Participation in projects	attendance and participation

## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
G- Maintain ethically sound relationship with community members.	- Lectures - Practical sessions - Discussion - Readings	Written exams
H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.	- Lectures - Practical sessions - Discussion - Readings	Written exams Practical exams
I- Present results of researches in seminars.	- Lectures - Practical sessions - Discussion - Readings	Log book assignments

## Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
J- Demonstrate respect, compassion, and integrity to the needs of society.	- Lectures - Discussion - Readings	Written exams
K- Manage potential conflicts of interest encountered by practitioners, researchers, and organizations.	- Lectures - Discussion - Readings	Written exams
L- Design strategies for resolving ethical concerns in research, law, and regulations.	Lectures - Discussion - Readings	Written exams Practical exams
M- Demonstrate ways to control for confounding in the analysis phase of a study	Lectures - Discussion - Readings	Written exams Practical exams
N- Demonstrate a commitment to ethical principles including confidentiality of participants' information and informed consent.	Lectures - Discussion - Readings	Written exams
O- Assess ethical considerations in developing communications and promotional initiatives.	- Lectures - Discussion - Readings	Written exams

## 4. Course contents (topic s/modules/rotation Course Matrix

### Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Over view on research conduction and research ethics	A&E	A-D	A-C	C-G, I,L&M-O
How to write a research proposal	F,I	E	F	A-C&H
Observational study design	A& D	B & C	D	E & F
Experimental study design	A& D	B & C	B	E & F
Evaluation of diagnostic tests (Screening )	L	A	B& E	F
Systematic reviews and meta analysis	G, H & M	E& F	F	C, D
Confounding, bias & effect modification	B & K	D	E & G	M

## 5. Course Methods of teaching/learning:

1. Lectures
2. Assignments
3. Discussion
4. Exercises

## 6. Course assessment methods:

### i. Assessment tools:

1. Attendance and participation
2. Log book assignments
3. Written examination
4. Practical examination

ii. **Time schedule:** After 6 months from applying to the M D degree.

iii. **Marks:** 50 (35 for written exam and 15 for practical exam).

## 7. List of references

### i. Lectures notes

- Department lecture notes

### ii. Essential books

- Research Design: Qualitative, Quantitative and Mixed Methods Approaches 4th Edition by John W. Creswell SAGE Publications, Inc; 4th edition (January 1, 2014)
- Research methodology: A step – by – step Guide for Beginners. Ranjit Kumar, 2020. Second edition <https://books.google.com.eg/books?>
- Medical Research Essentials Rania Esteitie, McGraw Hill Professional, third edition, Feb 5, 2014 - Medical - 104 pages
- Research Methodology in the Medical and Biological Sciences Petter Laake, Haakon Breien Benestad, Bjorn R. Reino Olsen, 4th edition , Academic Press, Nov 5, 2007 - Science - 512 pages

### iv. Recommended books

- Research Methods in Education 7th Edition, by Louis Cohen, Lawrence Manion, Keith Morrison Publisher: Routledge; (April 22, 2011) [www.routledge.com/textbooks/cohen7e](http://www.routledge.com/textbooks/cohen7e).
- Research Methodology: A Practical and Scientific Approach Vinayak Bairagi, Mousami V. Munot · 2019, Research Methodology: A Practical and Scientific Approach - Google Books
- Based Medicine How to practice and teach EBM. David Sachett, Sharon E. Straus, W. Scott Richardson , William Rosenberg R. Brain Haynes
- Dissertation workshop open courseware JHSPH

## 8. Signatures

<b>Course Coordinator:</b> Prof. Mahmoud Attia	<b>Head of the Department:</b> Prof. Eman Morsy Mohamed
<b>Date:</b> 10-1-2022	<b>Date:</b> 10-1-2022

### **3: Course 3: Medico legal Aspects and Ethics in Medical Practice and Scientific Research**

***Name of department:***

***Forensic medicine and clinical toxicology***

***Faculty of medicine***

***Assiut University***

**2016-2017**

#### **1. Course data**

- + Course Title: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research**
- + Course code: FAC310C**
- + Speciality: General and special surgery (1<sup>st</sup> part),**
- + Number of credit points: 1 credit point**
- + Department (s) delivering the course: Forensic Medicine and Clinical Toxicology**
- + Coordinator (s):**
- + Course coordinator:**  
Prof. Ghada omran
- + Date last reviewed: September 2017**
- + Requirements (prerequisites) if any :**
  - Completed Master degree**

## 2. Course Aims

To describe the basic ethical and medicolegal principles and bylaws relevant to practice in the field of General and special surgery  
Rheumatology

## 3. Intended learning outcomes (ILOs):

### A. knowledge and understanding

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Mention principals of writing consent forms.	Lecture and discussion	Written & oral exam
B. Mention principals of Writing a death certificate	Lecture and discussion	Written & oral exam
C. Explain principals of medical reports.	Lecture and discussion	Written & oral exam
D. Mention principals of Dealing with wounds.	Lecture and discussion	Written & oral exam
E. Mention principals of firearm injuries.	Lecture and discussion	Written & oral exam
F. List indications of induced emesis, gastric lavage and samples collection.	Lecture and discussion	Written & oral exam

## B. Intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Design and present case , seminars in death certificate	Lecture and discussion	Written & oral exam
B. Design and present case, seminars in toxicological cases	Lecture and discussion	Written & oral exam

## C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Identify medical ethics and ethics in research.	Lecture and discussion	Discussion
B. Prepare and write consent.	Lecture and discussion	Discussion
C. Identify medical responsibilities.	Lecture and discussion	Discussion
D. Write death certificate.	Lecture and discussion	Discussion and active participation
E. Deal with a case of Suspicious death	Lecture and discussion	Discussion and active participation
F. Write medical reports	Lecture and discussion	Discussion and active participation
G. Identify types of wounds and deal with them.	Lecture and discussion	Discussion and active

		participation
H. Identify types, distance and direction of firearm wounds and deal with them	Lecture and discussion	Discussion and active participation
I. Elicit death associated with surgical anesthesia.	Lecture and discussion	Discussion and active participation
J. Perform gastric lavage, induce emesis, and obtain samples	Lecture and discussion	Discussion and active participation

### D. General Skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Present a case.	Lecture and discussion	Global rating logbook
B. Write a consultation note	Lecture and discussion	Global rating logbook
C. Inform patients and maintaining comprehensive.	Lecture and discussion	Global rating logbook
D. Make timely and legible medical records	Lecture and discussion	Global rating logbook
E. Acquire the teamwork skills	Lecture and discussion	Global rating logbook



## 4. Course contents (topic s/modules/rotation Course Matrix

### Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
1. Death and death certificate.	B	A	D	
2. Suspicious death	B		E	B
3. Death associated with surgical anesthesia	B		I	B
4. Medical reports	C	B	F	A,D,E
5. Toxicological Reports	F	B	J	A,E
6. Wounds	D		G	B
7. Firearm injuries	E		H	B
8. Ethics in research			A	
9. Medical ethics.	A		A,B,C	C,E

## 5. Course Methods of teaching/learning:

1. Lectures.
2. Discussions.
3. Exercises.

## 6. Course assessment methods:

### i. Assessment tools:

1. Written examination.
2. Attendance and active participation.
3. Oral examination.

ii. **Time schedule:** After 6 months from applying to the M D degree.

iii. **Marks:** 50 (35for written exam and 15 for oral exam).

## 7. List of references

### i. Lectures notes

- Course notes.
- Staff members print out of lectures and/or CD copies.

### ii. Essential books

- Bernard Knight and Pekka Saukko (2015: Knight Forensic Pathology. Hodder Arnold press
- Goldfrank, Lewis R.; Howland, Mary Ann; Hoffman, Robert S.; Nelson, Ewis S.; Lewin, Neal A (2019): Goldfrank's Toxicologic Emergencies, 11<sup>th</sup> ed. McGraw Hill / Medical.
- Medical Ethics Manual. World medical association. Third edition 2015.
- Medical ethics and law. Dominic Wilkinson, 3<sup>rd</sup> edition 2019.

### iii. Recommended books

- Biswas Gautam (2021): Review of Forensic Medicine & Toxicology. 5<sup>th</sup> ed. Jaypee Brothers Medical Pub.

### iv. Journal and web site

- Journals of all Egyptian Universities of Forensic Medicine and Clinical Toxicology.
- All International Journals of Forensic Medicine and Clinical Toxicology which available in the university network at [www.sciencedirect.com](http://www.sciencedirect.com). As :
  - Forensic Science International Journal.
  - Toxicology Letter.









### v. others

## 8. Signatures

<b>- Course Coordinator:</b> Prof. Prof. Ghada omran	<b>- Head of the Department:</b> Prof. Randa Hussein Abdelhady
<b>Date:</b> September 2017	<b>Date:</b> September 2017

## Course 4 **Surgical Anatomy and Embryology**

### 1. **Course data**

-  **Course Title: Surgical Anatomy and Embryology**
-  **Course code: PSU 311A**
-  **Specialty Pediatric Surgery**
-  **Number of Credit point :- Didactic 3.5 (100%)CPS - practical 0 (0%) , total (3.5CPS)**
-  **Department (s) delivering the course : Pediatric Surgery department**
-  **Coordinator (s):**
  - **Course coordinator:**  
**Prof Dr: Mohamed Abdelkader Osman**
  - **Assistant coordinator (s)**  
**Prof Dr Mahmoud Mohamed Mostafa**
-  **Date last reviewed: 9-2022**
-  **Requirements (prerequisites) if any : None**

## 2. Course Aims

-The student should acquire in depth Anatomical facts necessary for Pediatric Surgery.

## 3. Intended learning outcomes (ILOs):

### A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A-Describe Anatomic details of Pediatric Surgery including: <ul style="list-style-type: none"> <li>• Head and neck</li> <li>• Thorax</li> <li>• Abdomen</li> <li>• Limbs</li> <li>• Mesenteric circulation</li> <li>• Portal circulation</li> <li>• Lymphatic system</li> </ul>	-Lectures	-Written and oral examination - Log book

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Anatomy with clinical reasoning, diagnosis and management of common conditions related to Pediatric Surgery.	Clinical rounds  Senior staff experience	Portfolios Procedure/case presentation Log book
A. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pediatric Surgery.		

### C- Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Master of basic skills in intra-operative anatomy related to pediatric surgery	-Laboratory work	-Assessment of practical skills -Log book
B. Examine anatomical parts of Corpse related to pediatric surgery		

### D-General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written and oral communication	Log book Oral exam

#### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A and A.B	-Clinical round -Seminars -Lectures	- Logbook Oral exam Chick list

## Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

## Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems	-Observation -Senior staff experience	1. 360o global rating

## 4. Contents (topic s/modules/rotation Matrix Course

**Time Schedule:** One year after application to MD degree

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill	General Skills
• Head and neck	A	A&B	A&B	A-D
• Thorax	A	A&B	A&B	A-D
• Abdomen	A	A&B	A&B	A-D
• Limbs	A	A&B	A&B	A-D
• Peripheral arteries	A	A&B	A&B	A-D
• Mesenteric circulation	A	A&B	A&B	A-D
• Portal circulation	A	A&B	A&B	A-D

## 5. Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Written & oral communication
3. Observation
4. Senior staff experience
5. Clinical round

## 6. Methods of teaching/learning: for students with poor achievements

1. Extra Didactic (lectures, seminars, tutorial) according to their needs

## 7. Assessment methods:

### i. Assessment tools:

- 1- Written and oral examination
- 2- Log book
- 3- Assessment of practical skills

ii. **Time schedule:** One year after application to MD degree

iii. **Marks:** 175

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

Grays anatomy

Current pediatric Surgery

### iv. Periodicals, Web sites, ... etc

- Pediatric Surgery
- Annals of Pediatric Surgery

## 9. Signatures

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<b>Course Coordinator:</b> Prof. Amoutaz A. Eltayeb	<b>Head of the Department:</b> Prof. Amoutaz A. Eltayeb
<b>Date:</b> .....	<b>Date:</b> .....

## Course 5 Surgical Pathology

### 1. Course data

- + Course Title: Surgical Pathology
- + Course code: PSU 311B
- + Speciality Vascular surgery
- + Number of Credit point :- Didactic 3.5 CPS(100%) - practical 0 (0%), total (3.5 CPS)
- + Department (s) delivering the Course: Pediatric surgery department
  
- + Coordinator (s): Coordinator (s):
  - Course coordinator:  
Prof Dr: Mohamed Abdelkader Osman
  - Assistant coordinator (s)  
Prof Dr Mahmoud Mohamed Mostafa
  
- + Date last reviewed: 9-2022
  
- + Requirements (prerequisites) if any : None



## 2. Course Aims

-The student should acquire in depth pathological facts necessary for pediatric Surgery.

## 3. Intended learning outcomes (ILOs):

### A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Mention Principles of General Pathology of: <ul style="list-style-type: none"> <li>- Acute and Chronic Inflammation.</li> <li>- Gangrene</li> <li>- Surgical infection.</li> <li>- Pathology of pediatric tumors</li> </ul>	-Lectures	-Written and oral examination - Log book
B-Describe Pathologic Details of: <ul style="list-style-type: none"> <li>- Hirschsprung's disease</li> <li>-Necrotizing enterocolitis</li> <li>-Autoimmune diseases</li> <li>-Mesenteric ischemia</li> <li>-Lymphatic system</li> <li>-Portal hypertension</li> <li>-Hematological disorders</li> <li>-Disorder of spleen</li> <li>-Atresia and stenosis of GIT</li> <li>-Liver and kidney disorders</li> </ul>		

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Pathology with clinical reasoning, diagnosis and management of common	Didactic	-Written and oral

diseases related to pediatric Surgery.	(lectures, seminars, tutorial)	examination -Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to pediatric Surgery.		

### C- Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Master of basic skills in the pathology related to pediatric surgery	-Laboratory work	-Assessment of practical skills -Log book
C. Examine Pathological jars of common diseases related to pediatric surgery		

### D-General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education	-Observation and supervision -Written and oral communication	Log book Oral exam

## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A and A.B	-Clinical round -Seminars -Lectures	- Logbook Oral exam Chick list

## Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	Observation Senior staff experience Case taking	Logbook Oral exam

## Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems	-Observation -Senior staff experience	1. 360o global rating

**contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule:** One year after application to MD degree

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Acute and Chronic Inflammation.	A	A&B	A&B	A-D
- Gangrene	A	A&B	A&B	A-D
- Surgical infection.	A	A&B	A&B	A-D
- Pathology of pediatric tumors	A	A&B	A&B	A-D
Hirschsprung's disease	B	A&B	A&B	A-D
-Necrotizing enterocolitis	B	A&B	A&B	A-D
Autoimmune diseases	B	A&B	A&B	A-D
--Hematological disorders -Mesenteric ischemia	B	A&B	A&B	
-Lymphatic , venous and arterial systems	B	A&B	A&B	A-D
-Disorder of spleen	B	A&B	A&B	A-D
-Atresia and stenosis of GIT			A&B	A-D
-Portal hypertension	B	A&B	A&B	A-D
Liver and kidney disorder	B	A&B	A&B	A-D

## **5. Methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Written & oral communication
3. Observation

## **6. Methods of teaching/learning: for students with poor achievements**

1. Extra Didactic (lectures, seminars, tutorial) according to their needs

## **7. Assessment methods:**

### **i. Assessment tools:**

- 1- Written examination
- 2- oral examination
- 3- Assessment of practical skills
- 4- Log book

**ii. Time schedule:** One year after application to MD degree

**iii. Marks: 175**

**8. List of references**

**i. Lectures notes**

- Course notes
- Staff members print out of lectures and/or CD copies

**ii. Essential books**

**1- Holcomb and Ashcraft's Pediatric Surgery 7th Edition - April 14, 2019 – ISBN 9780323549400**

**iii. Recommended books.**

**iv. Periodicals, Web sites, ... etc**

- Pediatric surgery
- Annals of Pediatric Surgery
- American journal of pathology

**9. Signatures**

<b>Course Coordinator:</b> <b>Almoataz Ahmed Altayeb</b>	<b>Head of the Department:</b> <b>Almoataz Ahmed Altayeb</b>
<b>Date:</b> .....	<b>Date:</b> .....

## Course 6 Pediatric Surgery

- *Name of department:* Pediatric Surgery
- *Faculty of medicine*
- *Assiut University*
- **2021-2022/2022-2023**

### I. Course data

- ✚ Course Title: Pediatric Surgery
- ✚ Course code: PSU 311C
- ✚ Speciality: Pediatric Surgery
- ✚ Number of points: Didactic 24 (16.3%) practical...123 (83.7%).total 147 CPS
- ✚ Department (s) delivering the course: Pediatric Surgery  
Coordinator (s):
  - Course coordinator: Prof. Amoutaz A. Eltayeb
  - Assistant coordinator (s)  
Dr Ahmed Gamal Abdelmalek
- ✚ Date last reviewed: 9/2022
- ✚ Requirements (prerequisites) if any :
- ✚ Master degree in general surgery
- ✚ Experience in pediatric surgery
- ✚ Requirements from the students to achieve course ILOs are clarified in the joining log book.

## 2. Course Aims

1. To develop competent pediatric surgeons
2. To support acquisition of based knowledge of normal and abnormal growth and development (physical, physiologic, psychosocial) and its clinical application from birth through adolescence.
3. Provide the students with a high quality research skills and activities and assist them in the international publications in peer-reviewed specialized medical journals.

## 3. Course intended learning outcomes (ILOs):

### A-Knowledge and understanding

#### Unit: 1 General

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Molecular genetics and gene therapy</li> <li>➤ The fetus as a patient</li> <li>➤ The fetus as surgical patient</li> <li>➤ Sepsis and related consideration</li> <li>➤ Trauma</li> </ul>	<p>Didactic; lectures; clinical rounds seminars</p>	<p><i>Written examination</i> <i>Oral exams</i> <i>M.C.Q</i></p>
<p>B. Mention the principles of</p>		



<ul style="list-style-type: none"> <li>➤ Respiratory physiology</li> <li>➤ Cardiovascular physiology</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions Trauma</p>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to general.</p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to the general</p>		
<p>F. describe the basics of quality assurance to ensure good clinical care in his field</p>		
<p>G. Explain the ethical and scientific principles of medical research</p>		
<p>H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.</p>		

## Unit :2 Head and neck

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>-Lymphadenopathy</li> <li>-Thyroid and parathyroid diseases</li> <li>-Branchial fistulae and cysts</li> <li>-Thyroglossal cyst and fistula</li> <li>-Cleft lip and palate and ranula</li> <li>-Cystic hygroma and arteriovenous malformation</li> <li>-Torticollis</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>Written and oral exams</p>
<p>B. Mention the principles of :</p> <p>CT MRI Abdominal and pelvic ultrasonography</p>		
<p>C. Mention briefly state of art of the following rare diseases and conditions</p> <ul style="list-style-type: none"> <li>-Cystic hygroma</li> <li>Arteriovenous malformation</li> <li>torticollis</li> </ul>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to <b>Pediatric surgery</b></p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to <b>Pediatric surgery</b>.</p>		
<p>F. describe the basics of quality assurance to ensure good clinical care in his field</p>		
<p>G. Explain the ethical and scientific principles of medical research</p>		
<p>H. Explains the impact of common health problems in the field of <b>Pediatric surgery</b> on the society.</p>		

## Unit: 3 Thorax

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Disorders of the breast</li> <li>➤ Congenital chest wall deformities</li> <li>➤ Congenital diaphragmatic hernia and eventration</li> <li>➤ Congenital mediastinal cyst and tumors</li> <li>➤ Tracheoesophageal fistula</li> <li>➤ Esophageal rupture and perforation</li> <li>➤ Caustic strictures of esophagus</li> <li>➤ Esophageal replacement</li> <li>➤ Gastroesophageal reflux</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>-Written exams. -oral exams. -M.C.Q</p>
<p>B. Mention the principles of:</p> <ul style="list-style-type: none"> <li>➤ X ray with or without contrast</li> <li>➤ Esophagoscopy</li> <li>➤ Thoracoscopy</li> <li>➤ Disorder of esophageal function</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions:</p> <ul style="list-style-type: none"> <li>➤ Esophageal atresia</li> <li>➤ Tracheoesophageal fistula</li> </ul>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to <b>thorax</b></p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to the <b>thorax</b>.</p>		
<p>F. Describe the basics of quality assurance to ensure good clinical care in Pediatric Surgery.</p>		
<p>G. Explain the ethical and scientific principles of medical research</p>		
<p>H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.</p>		

## Unit: 4 Abdomen

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Disorders of the umbilicus</li> <li>➤ Defects of the abdominal wall</li> <li>➤ Inguinal hernia and hydrocele</li> <li>➤ Undescended testis, torsion and varicocele</li> <li>➤ Hypertrophic pyloric stenosis</li> <li>➤ Peptic ulcer and other conditions of stomach</li> <li>➤ Duodenal atresia, stenosis, and annular pancreas</li> <li>➤ Jejunoileal atresia and stenosis</li> <li>➤ Meconium ileus</li> <li>➤ Meckels diverticulum</li> <li>➤ Intussusceptions</li> <li>➤ Disorder of rotation and fixation</li> <li>➤ Other causes of intestinal obstruction</li> <li>➤ Short-bowel syndrome</li> <li>➤ Gastrointestinal bleeding</li> <li>➤ Gastrointestinal duplications</li> <li>➤ Mesenteric and omental cysts</li> <li>➤ Polypoid disease of gastrointestinal tract</li> <li>➤ Necrotizing enterocolitis</li> <li>➤ Inflammatory bowel diseases</li> <li>➤ Peritonitis</li> <li>➤ Stoma of large and small intestine</li> <li>➤ Atresia, stenosis and other obstructions of the colon</li> <li>➤ Appendicitis</li> <li>➤ Hirschsprung's disease</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>-Written exams. -oral exams. -M.C.Q</p>

<ul style="list-style-type: none"> <li>➤ Anorectal anomalies</li> <li>➤ Other disorders of the anus, rectum, anorectal function</li> <li>➤ Colorectal tumors</li> <li>➤ The jaundiced infants</li> <li>➤ Choledochal cyst</li> <li>➤ Gall bladder disease and hepatic infection</li> <li>➤ Nonmalignant tumors of the liver</li> <li>➤ Portal hypertension</li> <li>➤ Disorders of pancreas</li> <li>➤ Disorders of spleen</li> <li>➤ Disorders of adrenal gland</li> </ul>		
<p>B. Mention the principles of :</p> <ul style="list-style-type: none"> <li>➤ X ray with or without contrast</li> <li>➤ Gastrointestinal endoscopy, Laparoscopy</li> <li>➤ Ultrasonography</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions:</p> <ul style="list-style-type: none"> <li>➤ Adrenal gland disorders</li> </ul>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to <b>abdomen</b></p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to the <b>abdomen</b>.</p>		
<p>F. describe the basics of quality assurance to ensure good clinical care in his field</p>		
<p>G. Explain the ethical and scientific principles of medical research</p>		
<p>H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.</p>		

## Unit: 5 Genitourinary and related disorders

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Agenesis, dysplasia and cystic disease of kidney</li> <li>➤ Congenital anomalies of pyeloureteral junction and the ureter.</li> <li>➤ Renal infection, abscess, and vesicoureteral reflux</li> <li>➤ Brune-Belly syndrome</li> <li>➤ Bladder exstrophy and other bladder lesion</li> <li>➤ Hypospadias</li> <li>➤ Abnormalities of urethera, penis and scrotum</li> <li>➤ Ambiguous genitalia</li> <li>➤ Abnormalities of the female genital tract</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>Written exams. -oral exams. -M.C.Q</p>
<p>B. Mention the principles of:</p> <ul style="list-style-type: none"> <li>➤ X ray with or without contrast</li> <li>➤ Urethroscopy</li> <li>➤ cystoscopy</li> <li>➤ Ultrasonography</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions</p> <ul style="list-style-type: none"> <li>➤ Ambiguous genitalia</li> </ul>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Genitourinary tract</p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to the Genitourinary tract.</p>		

F. describe the basics of quality assurance to ensure good clinical care in Pediatric Surgery.		
G. Explain the ethical and scientific principles of medical research		
H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.		

### Unit: 6 Skin, soft tissues and blood vessels

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Congenital defect of skin, muscle connective tissue tendons and hands</li> <li>➤ Tumors of soft tissue</li> <li>➤ Conjoined twins</li> <li>➤ Vascular anomalies</li> <li>➤ Venous disorders</li> <li>➤ Arterial disorders</li> <li>➤ Lymphatic disorders</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>Written exams. -oral exams. --M.C.Q</p>
<p>B. Mention the principles of:</p> <ul style="list-style-type: none"> <li>➤ X ray with or without contrast</li> <li>➤ CT</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions</p> <ul style="list-style-type: none"> <li>➤ Conjoined twin</li> </ul>		
<p>D. Explain the facts and principles of the relevant</p>		

basic and clinically supportive sciences related to Skin, soft tissues and blood vessels		
E. Describe the basic ethical and medicolegal principles relevant to the Skin, soft tissues and blood vessels.		
F. Describe the basics of quality assurance to ensure good clinical care in Pediatric Surgery.		
G. Explain the ethical and scientific principles of medical research		
H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.		

### Unit: 7 Major tumors of childhood

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</p> <ul style="list-style-type: none"> <li>➤ Principles of pediatric oncology</li> <li>➤ Wilms' tumors</li> <li>➤ Neuroblastoma</li> <li>➤ Liver tumors</li> <li>➤ Teratomas and other germ cell tumors</li> <li>➤ Hodgkin's and non-Hodgkin' disease</li> <li>➤ Ovarian tumors</li> <li>➤ Testicular tumors</li> </ul>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)</p>	<p>Written exams. -oral exams. --M.C.Q</p>
<p>B. Mention the principles of :</p> <ul style="list-style-type: none"> <li>➤ Biopsy techniques for children</li> </ul>		



<ul style="list-style-type: none"> <li>➤ X ray with or without contrast</li> <li>➤ CT</li> <li>➤ MRI</li> </ul>		
<p>C. Mention briefly state of art of the following rare diseases and conditions</p> <ul style="list-style-type: none"> <li>➤ Wilms’ tumors</li> </ul>		
<p>D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Major tumors of childhood</p>		
<p>E. Describe the basic ethical and medicolegal principles relevant to the Major tumors of childhood</p>		
<p>F. describe the basics of quality assurance to ensure good clinical care in Pediatric Surgery.</p>		
<p>G. Explain the ethical and scientific principles of medical research</p>		
<p>H. Explains the impact of common health problems in the field of Pediatric Surgery on the society.</p>		

**B-Intellectual outcomes for all units ( unit 1-7)**

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Design / present case in common problem related to Pediatric Surgery.</p>	<p>Didactic; Lectures Clinical rounds Seminars Clinical rotations  (service teaching)</p>	<p>-Written and oral exams.</p>
<p>B. Apply the basic and clinically supportive</p>		

sciences which are appropriate to the speciality related conditions / problem / topics.		
C. Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical situation related to Pediatric Surgery		
D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governance. Bleeding Shock		
G. Plan quality improvement activities in the field of medical education and clinical practice in Pediatric Surgery.		
H. Create / innovate plans, systems, and other issues for improvement of performance in his practice.		
I. Present and defend his / her data in front of a panel of experts		
J. Formulate management plans and alternative decisions in different situations in the field of Pediatric Surgery.		

## C-Practical skills (Patient Care)

**Unit: 1 General = 0**

**Unit: 2 Head and Neck**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions <b>related to Pediatric Surgery</b>	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	Written exams. -oral exams. -Operative performance
B. Order the following non invasive/invasive diagnostic procedures <ul style="list-style-type: none"> <li>➤ Cervical X-ray</li> <li>➤ Head and neck CT</li> <li>➤ Head and neck MRI</li> </ul>	Clinical rounds Seminars Clinical rotations (service teaching) Video conference	Written and oral exams. Operative performance -Logbook
C. Interpret the following non invasive/invasive diagnostic procedures <ul style="list-style-type: none"> <li>➤ Interpretation of x-ray</li> <li>➤ Interpretation of CT</li> </ul>	Clinical rounds Seminars Clinical rotations (service teaching)	Written and oral exams. Operative performance -Logbook

	Video conference	
<p>D. Perform the following non invasive/invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>➤ Lymph node Biopsy</li> <li>➤ Fine Needle Aspiration</li> <li>➤ True cut biopsy</li> </ul>	<p>Hand on workshops</p> <ul style="list-style-type: none"> <li>-Perform under supervision of senior staff</li> </ul>	<p>Procedure presentation</p> <ul style="list-style-type: none"> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>E. Prescribe the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Sistrunk operation</li> <li>➤ Thyroidectomy</li> <li>➤ Cleft lip reconstruction</li> </ul>	<p>Hands on workshops</p> <ul style="list-style-type: none"> <li>-Perform under supervision of senior staff</li> </ul>	<p>-Procedure presentation</p> <ul style="list-style-type: none"> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>F. Perform the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Sistrunk operation</li> <li>➤ Thyroidectomy</li> </ul>	<p>Hand on workshops</p> <ul style="list-style-type: none"> <li>-Perform under supervision of senior staff</li> </ul>	<p>Procedure presentation</p> <ul style="list-style-type: none"> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>G. Develop and carry out patient management plans for problems of head and neck.</p>	<ul style="list-style-type: none"> <li>-Lectures</li> <li>-Clinical rounds</li> <li>-Seminars</li>   <li>-Clinical round with senior staff</li> </ul>	

	Observation -Post graduate teaching -Case Presentation	
H. Counsel and educate patients and their family about ➤ The risk of the disease and operative steps and postoperative care	-Lectures -Clinical rounds -Seminars -Clinical round with senior staff Observation -Post graduate teaching	-Clinical examination -Check list -log book & portfolio Procedure/case presentation
I. Use information technology to support patient care decisions and patient education for <b>pediatric surgery</b> related conditions.		
J. Provide health care services aimed at preventing the following conditions ➤ Hypothyroidism in infants-	-Lectures -Clinical rounds -Seminars	checklist
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and		

<p>sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)</p>		
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### Unit: 3 Thorax

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Take history, examine and clinically diagnose different conditions <b>related thorax</b></p>	<ul style="list-style-type: none"> <li>-Didactic;</li> <li>-Lectures</li> <li>-Clinical rounds</li> <li>-Seminars</li> <li>-Clinical rotations (service teaching)</li> </ul>	<ul style="list-style-type: none"> <li>-Written and oral exams.</li> <li>-Operative performance</li> </ul>
<p>B. Order the following non invasive/invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>➤ Endoscopy</li> <li>➤ Contrast study</li> <li>➤ CT</li> <li>➤ MRI</li> </ul>	<ul style="list-style-type: none"> <li>Clinical rounds</li> <li>Seminars</li> <li>Clinical rotations (service teaching)</li> <li>Video conference</li> </ul>	<ul style="list-style-type: none"> <li>Written and oral exams.</li> <li>Operative performance</li> <li>-Logbook</li> </ul>
<p>C. Interpret the following non invasive/invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>➤ Contrast study</li> <li>➤ CT</li> </ul>	<ul style="list-style-type: none"> <li>Clinical rounds</li> <li>Seminars</li> <li>Clinical rotations</li> </ul>	<ul style="list-style-type: none"> <li>-Written and oral exams.</li> <li>-Operative performance</li> <li>-Logbook</li> </ul>

<p>➤ MRI</p>	<p>(service teaching) Video conference</p>	
<p>D. Perform the following non invasive/invasive diagnostic procedures Esophagoscopy</p>	<p>Hand on workshops -Perform under supervision of senior staff</p>	<p>-Procedure presentation - Log book - Chick list</p>
<p>E. Prescribe the following non invasive/invasive therapeutic procedures. X-ray Contrast study Esophagoscopy MRI CT</p>	<p>Hands on workshops -Perform under supervision of senior staff</p>	<p>-Procedure presentation - Log book - Chick list</p>
<p>F. Perform the following non invasive/invasive therapeutic procedures. Esophagoscopy</p>	<p>-Hand on workshops -Perform under supervision of senior staff</p>	<p>Procedure presentation - Log book - Chick list</p>
<p>G. Develop and carry out patient management plans for the mentioned diseases in A.A.</p>	<p>-Lectures -Clinical rounds -Seminars  -Clinical round with senior staff</p>	

	Observation -Post graduate teaching Case Presentation	
<p>H. Counsel and educate patients and their family about</p> <ul style="list-style-type: none"> <li>➤ The risk of the lesion</li> <li>➤ Operative steps</li> <li>➤ Postoperative care</li> </ul>	<p>Lectures Clinical rounds Seminars Clinical round with senior staff Observation Post graduate teaching</p>	<p>Clinical examination -Check list -log book &amp; portfolio Procedure/case presentation</p>
<p>I. Use information technology to support patient care decisions and patient education for <b>the thorax</b> related conditions.</p>		
<p>J. Provide health care services aimed at preventing the following conditions</p> <ul style="list-style-type: none"> <li>➤ Postoperative complications</li> </ul>	<p>Lectures Clinical rounds Seminars</p>	<p>checklist</p>
<p>K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.</p>		
<p>L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic</p>		



plan, completing and evaluating comprehensive, timely and legible medical records)		
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### Unit 4: Abdomen

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions <b>related abdomen</b>	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-Written and oral exams. -Operative performance
B. Order the following non invasive/invasive diagnostic procedures ➤ Endoscopy ➤ Contrast study ➤ CT ➤ MRI	Clinical rounds Seminars Clinical rotations (service teaching) Video conference	-Written and oral exams. -Operative performance -Logbook
C. Interpret the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI-	-Clinical rounds -Seminars -Clinical rotations (service teaching) -Video conference	-Written and oral exams. -Operative performance -Logbook

<p>D. Perform the following non invasive/invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>➤ Endoscopy</li> <li>➤ laparoscopy</li> </ul>	<p>Hand on workshops -Perform under supervision of senior staff</p>	<p>Procedure presentation - Log book - Chick list</p>
<p>E. Prescribe the following non invasive/invasive therapeutic procedures. Intervention by GIT endoscopy and laparoscopy</p>	<p>-Hands on workshops -Perform under supervision of senior staff</p>	<p>-Procedure presentation - Log book - Chick list</p>
<p>F. Perform the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Appendectomy</li> <li>➤ Colostomy performing and closure</li> <li>➤ Exploration</li> <li>➤ Laparoscopy</li> <li>➤ Endoscopy</li> </ul>	<p>Hand on workshops -Perform under supervision of senior staff</p>	<p>Procedure presentation - Log book - Chick list</p>
<p>G. Develop and carry out patient management plans for All mentioned disease IN A.A</p>	<p>-Lectures Clinical rounds Seminars -Clinical round with senior staff Observation Post graduate teaching</p>	

	Case Presentation	
<p>H. Counsel and educate patients and their family about</p> <ul style="list-style-type: none"> <li>➤ The risk of the lesion</li> <li>➤ Operative steps</li> <li>➤ Postoperative care</li> </ul>	<p>-Lectures -Clinical rounds -Seminars -Clinical round with senior staff Observation -Post graduate teaching</p>	<p>-Clinical examination -Check list -log book &amp; portfolio Procedure/case presentation</p>
<p>I. Use information technology to support patient care decisions and patient education for <b>the abdomen</b> related conditions.</p>		
<p>J. Provide health care services aimed at preventing the following conditions</p> <ul style="list-style-type: none"> <li>➤ Postoperative complications</li> </ul>	<p>Lectures Clinical rounds Seminars</p>	<p>checklist</p>
<p>K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.</p>	<p>Clinical round with senior staff</p>	
<p>L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)</p>		

## Unit 5: Genitourinary tract

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions <b>related</b> Genitourinary tract	-Didactic; -Lectures -Clinical rounds -Seminars -Clinical rotations (service teaching)	-Written and oral exams. -Operative performance
B. Order the following non invasive/invasive diagnostic procedures ➤ Endoscopy ➤ Contrast study ➤ CT ➤ MRI	-Clinical rounds -Seminars -Clinical rotations (service teaching) Video conference	-Written and oral exams. -Operative performance -Logbook
C. Interpret the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI-	-Clinical rounds -Seminars -Clinical rotations (service teaching) Video conference	-Written and oral exams. -Operative performance -Logbook
D. Perform the following non invasive/invasive diagnostic procedures	-Hand on workshops -Perform	Procedure presentation - Log book

<ul style="list-style-type: none"> <li>➤ Endoscopy</li> <li>➤ laparoscopy</li> </ul>	under supervision of senior staff	- Chick list
<p>E. Prescribe the following non invasive/invasive therapeutic procedures.</p> <p>Intervention by GIT endoscopy and laparoscopy</p>	-Hands on workshops -Perform under supervision of senior staff	-Procedure presentation - Log book - Chick list
<p>F. Perform the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Appendectomy</li> <li>➤ Colostomy performing and closure</li> <li>➤ Exploration</li> <li>➤ Intervention by GIT endoscopy and laparoscopy</li> </ul>	Hand on workshops -Perform under supervision of senior staff	Procedure presentation - Log book - Chick list
<p>G. Develop and carry out patient management plans for mentioned disease in A.A .</p>	Lectures Clinical rounds Seminars -Clinical round with senior staff Observation -Post graduate teaching -Case Presentation	

<p>H. Counsel and educate patients and their family about</p> <ul style="list-style-type: none"> <li>➤ The risk of the lesion</li> <li>➤ Operative steps</li> <li>➤ Postoperative care</li> </ul>	<p>-Lectures -Clinical rounds -Seminars -Clinical round with senior staff Observation -Post graduate teaching</p>	<p>Clinical examination -Check list -log book &amp; portfolio Procedure/case presentation</p>
<p>I. Use information technology to support patient care decisions and patient education for the Genitourinary tract related conditions.</p>		
<p>J. Provide health care services aimed at preventing the following conditions Postoperative complications</p>	<p>Lectures Clinical rounds Seminars</p>	<p>checklist</p>
<p>K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.</p>		
<p>L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)</p>	<p>Clinical round with senior staff</p>	

## Unit 6: soft tissues and blood vessels

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions <b>related</b> soft tissues and blood vessels	-Didactic; - Lectures -Clinical rounds -Seminars Clinical rotations (service teaching)	-Written and oral exams. -Operative performance
B. Order the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI	-Clinical rounds -Seminars -Clinical rotations (service teaching) Video conference	-Written and oral exams. -Operative performance -Logbook
C. Interpret the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI-	-Clinical rounds -Seminars -Clinical rotations (service teaching) -Video conference	-Written and oral exams. -Operative performance -Logbook
D. Perform the following non invasive/invasive diagnostic procedures	Hand on workshops -Perform under	Procedure presentation - Log book - Chick list

<ul style="list-style-type: none"> <li>➤ Resection</li> <li>➤ Biopsy</li> </ul>	supervision of senior staff	
<p>E. Prescribe the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Excision</li> </ul>	<ul style="list-style-type: none"> <li>-Hands on workshops</li> <li>-Perform under supervision of senior staff</li> </ul>	<ul style="list-style-type: none"> <li>-Procedure presentation</li> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>F. Perform the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Excision</li> </ul>	<ul style="list-style-type: none"> <li>Hand on workshops</li> <li>-Perform under supervision of senior staff</li> </ul>	<ul style="list-style-type: none"> <li>Procedure presentation</li> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>G. Develop and carry out patient management plans for all mentioned diseases in A.A.</p>	<ul style="list-style-type: none"> <li>-Lectures</li> <li>-Clinical rounds</li> <li>-Seminars</li> <li>-Clinical round with senior staff</li> <li>Observation</li> <li>-Post graduate teaching</li> <li>-Case Presentation</li> </ul>	
<p>H. Counsel and educate patients and their family about</p> <ul style="list-style-type: none"> <li>➤ The risk of the lesion</li> <li>➤ Operative steps</li> </ul>	<ul style="list-style-type: none"> <li>-Lectures</li> <li>-Clinical rounds</li> <li>-Seminars</li> <li>Clinical</li> </ul>	<ul style="list-style-type: none"> <li>Clinical examination</li> <li>-Check list</li> <li>-log book &amp; portfolio</li> </ul>



<p>➤ Postoperative care</p>	<p>round with senior staff Observation -Post graduate teaching</p>	<p>Procedure/case presentation</p>
<p>I. Use information technology to support patient care decisions and patient education for <b>the</b> soft tissues and blood vessels related conditions.</p>		
<p>J. Provide health care services aimed at preventing the following conditions ➤ Postoperative complications</p>	<p>Lectures Clinical rounds Seminars</p>	<p>checklist</p>
<p>K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.</p>		
<p>L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)</p>	<p>Clinical round with senior staff</p>	

## Unit 7: Major tumors of childhood

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions <b>related</b> Major tumors of childhood	-Didactic; - Lectures -Clinical rounds Seminars Clinical rotations (service teaching)	-Written and oral exams. Operative performance
B. Order the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI ➤ Biopsy	-Clinical rounds -Seminars -Clinical rotations (service teaching) -Video conference	-Written and oral exams. -Operative performance -Logbook
C. Interpret the following non invasive/invasive diagnostic procedures ➤ Contrast study ➤ CT ➤ MRI-	-Clinical rounds -Seminars Clinical rotations (service teaching) -Video conference	-Written and oral exams. -Operative performance -Logbook
D. Perform the following non invasive/invasive diagnostic procedures	Hand on workshops -Perform under	Procedure presentation - Log book - Chick list

<ul style="list-style-type: none"> <li>➤ Resection</li> <li>➤ Biopsy</li> </ul>	supervision of senior staff	
<p>E. Prescribe the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Excision</li> </ul>	<p>-Hands on workshops</p> <p>-Perform under supervision of senior staff</p>	<p>-Procedure presentation</p> <p>- Log book</p> <p>- Chick list</p>
<p>F. Perform the following non invasive/invasive therapeutic procedures.</p> <ul style="list-style-type: none"> <li>➤ Excision</li> <li>➤ Biopsy</li> </ul>	<p>Hand on workshops</p> <p>-Perform under supervision of senior staff</p>	<p>Procedure presentation</p> <p>- Log book</p> <p>- Chick list</p>
<p>G. Develop and carry out patient management plans for all mentioned diseases in A.A.</p>	<p>Lectures</p> <p>Clinical rounds</p> <p>Seminars</p> <p>Clinical round with senior staff</p> <p>Observation</p> <p>Post graduate teaching</p> <p>Case Presentation</p>	
<p>H. Counsel and educate patients and their family about</p> <ul style="list-style-type: none"> <li>➤ The risk of the lesion</li> <li>➤ Operative steps</li> </ul>	<p>Lectures</p> <p>Clinical rounds</p> <p>Seminars</p> <p>Clinical</p>	<p>Clinical examination</p> <p>-Check list</p> <p>-log book &amp; portfolio</p>

<p>➤ Postoperative care</p>	<p>round with senior staff Observation Post graduate teaching</p>	<p>Procedure/case presentation</p>
<p>I. Use information technology to support patient care decisions and patient education for <b>the</b> Major tumors of childhood.</p>		
<p>J. Provide health care services aimed at preventing the following conditions Postoperative complications</p>	<p>Lectures Clinical rounds Seminars</p>	<p>checklist</p>
<p>K. Work with health care professionals, including those from other disciplines, to provide patient-focused care.</p>		
<p>L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)</p>	<p>Clinical round with senior staff</p>	

## D-General Skills For all units (units 1-7)

### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)	Didactic; Lectures Clinical rounds Seminars, Clinical rotations (service teaching)	Written and oral exams. Operative performance
B. Locate, appraises, and assimilates evidence from scientific studies related to patients' health problems.	Simulations Clinical round Seminars Lectures Case presentation Hand on workshops	Global rating Portfolios Procedure/case presentation Log book Chick list
C. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness		
D. Use information technology to manage information, access on-line medical information; and support their own education		
E. Lead the learning of students and other health care professionals.		

## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Create and sustain a therapeutic and ethically sound relationship with patient's <b>families</b>	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	oral exams. Operative performance
G. Perform the following oral communications: ➤ With Parents of patients		
H. Fill the following reports: ➤ Preoperative sheet ➤ Operative notes ➤ Therapeutic notes ➤ Discharge notes ➤ Death notes-		
I. Work effectively with others as a member or leader of a health care team		

## Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	1. Objective structured clinical examination 2. Patient survey
K. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.		1. 360o global rating
L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

## Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Work effectively in different health care delivery settings and systems.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	1. 360o global rating
N. Practice cost-effective health care and resource allocation that does not compromise quality of care		1. Check list evaluation of live or recorded performance
O. Advocate for quality patient care and assist patients in dealing with system complexities		1. 360o global rating  2. Patient survey
P. Partner with health care managers and health care providers to assess, coordinate, and improve health care and predict how these activities can affect system performance		



**4. Course contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: Second part**

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
<b>Unit 1 General</b>				
➤ Molecular genetics and gene therapy	A, D-H	A-J	-	A-P
➤ The fetus as a patient	A, D-H	A-J	-	A-P
➤ The fetus as surgical patient	A, D-H	A-J	-	A-P
➤ Sepsis and related consideration	A, D-H	A-J	-	A-P
Trauma	A,C,D-H	A-J	-	A-P
➤ Respiratory physiology	B, D-H	A-J	-	A-P
➤ Cardiovascular physiology	B, D-H	A-J	-	A-P
<b>Unit 2 HEAD AND NECK</b>				
Lymphadenopathy	A-H	A-J	A-C,D,	A-P
-Thyroid and parathyroid diseases	A-H	A-J	A-C,D,E,F,G-L	A-P
-Branchial fistulae and cysts	A-H	A-J	A-C,G-I,K-L	A-P
-Thyroglossal cyst and fistula	A-H	A-J	A-C, G-I,K-L	A-P
-Cleft lip and palate and ranula	A-H	A-J	A-C,E,F, G-I,K-L	A-P
-Cystic hygroma and arteriovenous malformation	A-H	A-J	A-C,E,F, G-I,K-L	A-P
-Torticollis	A-H	A-J	A-C,E,F, G-I,K-L	A-P
<b>Unit 3 Thorax</b>				

➤ Disorders of the breast	A, D-H	A-J	A-C,E,G-L	A-P
➤ Congenital chest wall deformities	A, D-H	A-J	A-C,E,G-L	A-P
➤ Congenital diaphragmatic hernia and eventration	A, D-H	A-J	A-C,D,F,E,G-L	A-P
➤ Congenital mediastinal cyst and tumors	A, D-H	A-J	A-C, E,G-L	A-P
➤ Tracheoesophageal fistula	A,C ,D-H	A-J	A-C,D,F, E,G-L	A-P
➤ Esophageal rupture and perforation	A, D-H	A-J	A-C, E,G-L	A-P
➤ Caustic strictures of esophagus	A, D-H	A-J	A-C,D,F, E,G-L	A-P
➤ Esophageal replacement	A, D-H	A-J	A-C, E,G-L	A-P
Gastroesophageal reflux	A, D-H	A-J	A-C,D,F, E,G-L	A-P
➤ X ray with or without contrast		A-J	A-C, E,G-L	A-P
➤ Esophagoscopy	B,D-H	A-J	A-C, E,G-L	A-P
➤ Thoracoscopy	B,D-H	A-J	A-C, E,G-L	A-P
➤ Disorder of esophageal function	B,D-H	A-J	A-C, E,G-L	A-P
<b>Unit 4 Abdomen</b>				
➤ Disorders of the umbilicus	A,D-H	A-J	A-C,G-L	A-P
➤ Defects of the abdominal wall	A,D-H	A-J	A-C,G-L	A-P
➤ Inguinal hernia and hydrocele	A,D-H	A-J	A-C,D-E, G-L	A-P
➤ Undescended testis, torsion and varicocele	A,D-H	A-J	A-C,D-E G-L	A-P
➤ Hypertrophic pyloric stenosis	A,D-H	A-J	A-C,D-E, G-L	A-P
➤ Peptic ulcer and other	A,D-H	A-J	A-C, ,D-E, G-L	A-P

conditions of stomach				
➤ Duodenal atresia, stenosis, and annular pancreas	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Jujenoileal atresia and stenosis	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Meconium ileus	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Meckels diverticulum	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Intussusceptions	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Disorder of rotation and fixation	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Other causes of intestinal obstruction	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Short-bowel syndrome	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Gastrointestinal bleeding	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Gastrointestinal duplications	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Mesenteric and omental cysts	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Polypoid disease of gastrointestinal tract	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Necrotizing enterocolitis	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Inflammatory bowel diseases	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Peritonitis	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Stoma of large and small intestine	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Atresia, stenosis and other obstructions of the colon	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Appendicitis	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Hirschsprung's disease	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>

➤ Anorectal anomalies	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Other disorders of the anus, rectum, anorectal function	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Colorectal tumors	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ The jaundiced infants	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Choledochal cyst	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Gall bladder disease and hepatic infection	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Nonmalignant tumors of the liver	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Portal hypertension	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ Disorders of pancreas	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E G-L</b>	<b>A-P</b>
➤ Disorders of spleen	<b>A,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
Disorders of adrenal gland	<b>A,C,D-H</b>	<b>A-J</b>	<b>A-C,D-E, G-L</b>	<b>A-P</b>
➤ X ray with or without contrast	<b>B,E,F</b>	<b>A-J</b>	<b>A-C, ,I,L</b>	<b>A-P</b>
➤ Gastrointestinal endoscopy, Laparoscopy	<b>B,E,F</b>	<b>A-J</b>	<b>A-C, ,I,L</b>	<b>A-P</b>
Ultrasonography	<b>B,E,F</b>	<b>A-J</b>	<b>A-C, ,I,L</b>	<b>A-P</b>
<b>Unit 5 Genitourinary and related disorders</b>				
➤ Agenesis, dysplasia and cystic disease of kidney	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Congenital anomalies of pyeloureteral junction and the ureter.	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Renal infection, abscess, and vesicoureteral reflux	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Brune-Belly syndrome	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Bladder exstrophy and other bladder lesion	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Hypospadias	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>
➤ Abnormalities of	<b>A,D-H</b>	<b>A-J</b>	<b>A-L</b>	<b>A-P</b>

urethra, penis and scrotum				
➤ Ambiguous genitalia	A,C, D-H	A-J	A-L	A-P
Abnormalities of the female genital tract	A,D-H	A-J	A-L	A-P
➤ X ray with or without contrast	B,E,F	A-J	A-C, ,I,L	A-P
➤ Urethroscopy	B,E,F		A-C, ,I,L	
➤ cystoscopy	B,E,F		A-C, ,I,L	
➤ Ultrasonography	B,E,F		A-C, ,I,L	
<b>Unit 6 Skin, soft tissues and blood vessels</b>				
➤ Congenital defect of skin, muscle connective tissue tendons and hands	A,D-H	A-J	A-L	A-P
➤ Tumors of soft tissue	A,D-H	A-J	A-L	A-P
➤ Conjoined twins	B,C,D-H	A-J	A-L	A-P
➤ Vascular anomalies	A,D-H	A-J	A-L	A-P
➤ Venous disorders	A,D-H	A-J	A-L	A-P
➤ Arterial disorders	A,D-H	A-J	A-L	A-P
➤ Lymphatic disorders	A,D-H	A-J	A-L	A-P
➤ X ray with or without contrast	B,E,F	A-J	A-C, ,I,L	A-P
CT	B,E,F	A-J	A-C, ,I,L	A-P
<b>Unit 7 Major tumors of childhood</b>				
➤ Principles of pediatric oncology	A,D-H	A-J	A-L	A-P
➤ Wilms' tumors	A,C,D-H	A-J	A-L	A-P
➤ Neuroblastoma	A,D-H	A-J	A-L	A-P
➤ Liver tumors	A,D-H	A-J	A-L	A-P

➤ Teratomas and other germ cell tumors	A,D-H	A-J	A-L	A-P
➤ Hodgkin's and non-Hodgkin' disease	A,C,D-H	A-J	A-L	A-P
➤ Ovarian tumors	A,D-H	A-J	A-L	A-P
Testicular tumors	A,D-H	A-J	A-L	A-P
➤ Biopsy techniques for children	B,E,F	A-J	A-L	A-P
➤ X ray with or without contrast	B,E,F	A-J	A-C, ,I,L	A-P
➤ CT	B,E,F	A-J	A-C, ,I,L	A-P
MRI	B,E,F	A-J	A-C, ,I,L	A-P

### **5. Course Methods of teaching/learning:**

1. Lectures
2. Seminars
3. Clinical rounds
4. Operative practice
5. Case presentation
6. Hand on workshops

### **6. Course Methods of teaching/learning: for students with poor achievements**

1. Lectures
2. Seminars
3. Clinical rounds

### **7. Course assessment methods:**

- i. Assessment tools: written exams  
oral exam.  
log book  
Clinical exam  
Operative exam
- ii. Time schedule: At the end of second part
- iii. Marks: 1200

## 8. List of references

**i. Lectures notes**

**ii. Essential books**

- Holcomb and Ashcraft's Pediatric Surgery 7th Edition -  
April 14, 2019

**iii. Recommended books**

**iv. Periodicals, Web sites, ... etc**

- Annal of pediatric surgery
- Journal of pediatric surgery
- Pediatric international

**v. Others**

- American association of Pediatric surgery
- Egyptian association of Pediatric surgery
- European academy of pediatric

## 9. Signatures

<b>Course Coordinator:</b> <b>Prof. Amoutaz A. Eltayeb</b>	<b>Head of the Department:</b>  <b>Prof. Amoutaz A. Eltayeb</b>
<b>Date:</b> .....	<b>Date:</b> .....

## **ANNEX 2**

# **Program Academic Reference Standards (ARS)**

### *1- Graduate attributes for medical doctorate*

***The Graduate (after residence training and medical doctorate years of study) must:***

- 1-** Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in the chosen field of **Pediatric Surgery**.
- 2-** Have continuous ability to add knowledge to the **Pediatric Surgery** through research and publication.
- 3-** Appraise and utilise relevant scientific knowledge to continuously update and improve clinical practice.
- 4-** Acquire excellent level of medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific research.
- 5-** Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.
- 6-** Identify and create solutions for health problems in his speciality.
- 7-** Acquire an in depth understanding of common areas of **Pediatric Surgery**, from basic clinical care to evidence based clinical application, and possession of required skills to manage independently all problems in these areas.
- 8-** Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.
- 9-** Function as teacher in relation to colleagues, medical students and other health professions.



- 10-** Master decision making capabilities in different situations related to his field of practice.
- 11-** Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.
- 12-** Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.
- 13-** Show model attitudes and professionalism.
- 14-** Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in the **Pediatric Surgery** or one of its subspecialties.
- 15-** Use recent technologies to improve his practice in the **Pediatric Surgery** field.
- 16-** Share in updating and improving clinical practice in the **Pediatric Surgery** field.

## ***2- Competency based Standards for medical doctorate***

### **2.1- Knowledge and understanding**

***By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of***

**2-1-A-** Established, updated and evidence- based theories, basics and developments of **Pediatric Surgery** and relevant sciences.

**2-1-B-** Basics, methods and ethics of medical research.

**2-1-C-** Ethical and medicological principles of medical practice related to **Pediatric Surgery** field.

**2-1-D-** Principles and measurements of quality in the **Pediatric Surgery** field.

**2-1-E-** Principles and efforts for maintenance and improvements of public health.

### **2- Intellectual skills**

***By the end of the program, the graduate should be able to demonstrate the following***

**2-2-A-** Application of basic and other relevant science to solve speciality related Problems.

**2-2-B-** Problem solving based on available data.

**2-2-C-** Involvement in research studies related to the **Pediatric Surgery**.

**2-2-D-** Writing scientific papers.

**2-2-E-** Risk evaluation in the related clinical practice.

**2-2-F-** Planning for performance improvement in the **Pediatric Surgery** field.

**2-2-G-** Creation and innovation in **Pediatric Surgery**.

**2-2-H-** Evidence – based discussion.

**2-2-I-** Decision making in different situations related to the **Pediatric Surgery**.

### **2.3- Clinical skills**

***By the end of the program, the graduate should be able to***

***+ Competency-based outcomes for Patient Care:-***

**2-3-A-** MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice.

**2-3-B-** Master patient care skills relevant to **Pediatric Surgery**. for patients with all diagnoses and procedures.

**2-3-C-** Write and evaluate reports for situations related to the **Pediatric Surgery**.

#### **2.4- General skills**

***By the end of the program, the graduate should be able to***

#### ***+ Competency-based outcomes for Practice-based Learning and Improvement***

**2-4-A-**Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management

**2-4-B-** Use competently all information sources and technology to improve his practice.

**2-4-C-** Master skills of teaching and evaluating others.

#### ***+ Competency-based objectives for Interpersonal and Communication Skills***

**2-4-D-**Master interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

#### ***+ Competency-based objectives for Professionalism***

**2-4-E-**Master Professionalism behavior, as manifested through a commitment to carrying out professional

responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

 ***Competency-based objectives for Systems-based Practice:***

**2-4-F-** Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

**2-4-G-** Participate in improvement of the education system.

**2-4-H-** Demonstrate skills of leading scientific meetings including time management

**2-4-O-** Demonstrate skills of self and continuous learning.

# Annex 3, Methods of teaching/learning

**Annex 3, Methods of teaching/learning**

	Patient care	Medical knowledge	Practice-based learning/Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Didactic (lectures, seminars, tutorial )	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	X

### **Teaching methods for knowledge**

- ❖ Didactic (lectures, seminars, tutorial )
- ❖ journal club
- ❖ Critically appraised topic
- ❖ Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- ❖ Others

### **Teaching methods for patient care**

- ❖ Observation and supervision /Completed tasks procedure/case logs
- ❖ On-the-job” training without structured teaching is not sufficient for this skill (checklists).
- ❖ Simulation is increasingly used as an effective method for skill/ teamwork training.

### **Teaching methods for other skills**

- ❖ Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- ❖ Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- ❖ Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

# Annex 4, Assessment methods



**Annex 4, ILOs evaluation methods for MD students.**

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/case log	X	X					
OSCE	X	X	X	X	X	X	X

#### **Annex 4, Glossary of MD students assessment methods**

- ❖ Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- ❖ Chart Stimulated Recall – Uses the MD doctor’s patient records in an oral examination to assess clinical decision-making.
- ❖ Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- ❖ Standardized Patients (SP) – Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MD doctor’s performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MD doctor’s performance.
- ❖ Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MD doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MD doctors.
- ❖ Procedure or Case Logs – MD doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MD doctors.
- ❖ Case /problems – assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- ❖ Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings.

Both are useful to assess practice performance and provide constructive feedback.

- ❖ 360 Global Rating Evaluations – MD doctors, faculty, nurses, clerks, and other clinical staff evaluate MD doctors from different perspectives using similar rating forms.
  
- ❖ Portfolios – A portfolio is a set of project reports that are prepared by the MD doctors to document projects completed during the MD study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
  
- ❖ Examination MCQ – A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
  
- ❖ Examination Oral – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
  
- ❖ Procedure or Case Logs – MD doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
  
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MD doctors.

# Annex 5, Program evaluation tools

<b>By whom</b>	<b>Method</b>	<b>sample</b>
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

# Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الدكتوراة مع المعايير الأكاديمية  
 المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الدكتوراة في جراحة الاطفال

## I- General Academic Reference Standards (GARS) versus Program ARS

### 1- Graduate attributes

Faculty ARS	NAQAAE General ARS for postgraduate Programs
1- Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in <b>Pediatric Surgery</b>	1- إتقان أساسيات و منهجيات البحث العلمي
2- Have continuous ability to add knowledge new developments to <b>Pediatric Surgery</b> through research and publication.	2- العمل المستمر علي الإضافة للمعارف في مجال التخصص
3- Appraise and utilise scientific knowledge to continuously update and improve clinical practice and relevant basic sciences.	3- تطبيق المنهج التحليلي والناقد للمعارف في مجال التخصص و المجالات ذات العلاقة
4- Acquire excellent level of medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific	4- دمج المعارف المتخصصة مع المعارف ذات العلاقة مستتبطا و مطورا للعلاقات البينية بينها
5- Function as a leader of a team to provide patient care that is appropriate, compassionate for dealing with effective and health Problems and health promotion. 7- Acquire an in depth understanding of common areas of speciality, from basic clinical care to evidence based clinical application, and possession of skills to manage independently all problems in these areas.	5- إظهار وعيا عميقا بالمشاكل الجارية و النظريات الحديثة في مجال التخصص
6- Identify and create solutions for health problems in <b>Pediatric Surgery</b> .	6- تحديد المشكلات المهنية و إيجاد حلولاً مبتكرة لحلها
5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with	7- إتقان نطاقا واسعا من المهارات المهنية في مجال التخصص

<p>health problems and health promotion.</p> <p>7- Acquire an in depth understanding of common areas of <b>Pediatric Surgery</b>, from basic clinical care to evidence based clinical application, and possession of skills to manage independently all problems in these areas.</p>	
<p>16- Share in updating and improving clinical practice in <b>Pediatric Surgery</b>.</p> <p>9- Function as teacher in relation to colleagues, medical students and other health professions.</p>	<p>8- التوجه نحو تطوير طرق و أدوات و أساليب جديدة للمزاولة المهنية</p>
<p>15- Use recent technologies to improve his practice in <b>Pediatric Surgery</b>.</p>	<p>9- استخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية</p>
<p>8- Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.</p> <p>5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.</p>	<p>10- التواصل بفاعلية و قيادة فريق عمل في سياقات مهنية مختلفة</p>
<p>10- Master decision making capabilities in different situations related to <b>Pediatric Surgery</b>.</p>	<p>11- اتخاذ القرار في ظل المعلومات المتاحة</p>
<p>11- Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.</p>	<p>12- توظيف الموارد المتاحة بكفاءة و تنميتها والعمل على إيجاد موارد جديدة</p>
<p>12- Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based</p>	<p>13- الوعي بدوره في تنمية المجتمع والحفاظ على البيئة</p>



improvement of care.	
13- Show model attitudes and professionalism.	14- التصرف بما يعكس الالتزام بالنزاهة و المصداقية و قواعد المهنة
14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in <b>Pediatric Surgery</b> or one of its subspecialties. 15- Use recent technologies to improve his practice in <b>Pediatric Surgery</b> .	15- الالتزام بالتنمية الذاتية المستمرة و نقل علمه و خبراته للآخرين

## 2- Academic standards

Faculty ARS	NAQAAE General ARS for postgraduate Programs
2.1. A- Established, updated and evidence- based theories, basics and developments of <b>Pediatric Surgery</b> and relevant sciences.	2-1-1-أ- النظريات و الأساسيات والحديث من المعارف في مجال التخصص والمجالات ذات العلاقة
2.1. B- Basic, methods and ethics of medical research.	2-1-2-ب- أساسيات و منهجيات و أخلاقيات البحث العلمي و أدواته المختلفة
2.1. C- Ethical and medicological principles of medical practice related to <b>Pediatric Surgery</b> .	2-1-2-ج- المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص
2.1. D- Principles and measurements of quality in <b>Pediatric Surgery</b> .	2-1-2-د- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. E- Principles and efforts for maintains and improvements of public health.	2-1-2-هـ- المعارف المتعلقة بآثار ممارسته المهنية على البيئة وطرق تنمية البيئة وصيانتها
2.2. A- Application of basic and other relevant science to solve <b>Pediatric Surgery</b> related problems.	2-2-1-أ- تحليل و تقييم المعلومات في مجال التخصص و القياس عليها و الاستنباط منها
2.2.B- Problem solving based on available data.	2-2-ب- حل المشاكل المتخصصة استنادا علي المعطيات المتاحة
2.2.C- Involvement in research studies related to <b>Pediatric Surgery</b> .	2-2-ج- إجراء دراسات بحثية تضيف إلى المعارف
2.2. D- Writing scientific papers.	2-2-د- صياغة أوراق علمية
2.2. E- Risk evaluation in the related clinical practice.	2-2-هـ- تقييم المخاطر في الممارسات المهنية
2.2.F- Planning for performance improvement in <b>Pediatric Surgery</b> .	2-2-و- التخطيط لتطوير الأداء في مجال التخصص
2-2-G- Creation and innovation in the <b>Pediatric Surgery</b> .	2-2-ز- الابتكار /الإبداع

2.2. H- Evidence – based discussion.	2-2-2-ح- الحوار والنقاش المبني علي البراهين والأدلة
2.2.I- Discussion making in different situations related to <b>Pediatric Surgery</b> .	2-2-2-ط- اتخاذ القرارات المهنية في سياقات مهنية مختلفة
2.3. A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in <b>Pediatric Surgery</b> . 2.3. B- Master patient care skills relevant to <b>Pediatric Surgery</b> or patients with all diagnoses and procedures.	2-3-2-أ- إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3. C- Write and evaluate reports for situations related to the field of <b>Pediatric Surgery</b> .	2-3-2-ب- كتابة و تقييم التقارير المهنية.
2.4.A-Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-3-2-ج- تقييم و تطوير الطرق و الأدوات القائمة في مجال التخصص
2.4.B- Use competently all information sources and technology to improve his practice.	2-3-2-د- استخدام الوسائل التكنولوجية بما يخدم الممارسة المهنية
2.4.A-Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.G- Participate in improvement of the education system.	2-3-2-هـ- التخطيط لتطوير الممارسة المهنية وتتمية أداء الآخرين

## II-Program ARS versus program ILOs

### *Comparison between ARS- ILOS for medical doctorate for Pediatric surgery*

<b>(ARS)</b>	<b>(ILOs)</b>
<b><u>2-1- Knowledge and understanding</u></b>	<b><u>2-1- Knowledge and understanding</u></b>
<b>2-1-A-</b> Established, updated and evidence-based Theories, Basics and developments of v and relevant sciences.	<b>2-1-A-</b> Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio behavioral science relevant to his pediatric surgery as well as the evidence – based application of this knowledge to patient care.
<b>2-1-B</b> Basic, methods and ethics of medical research.	<b>2-1-B-</b> Explain basics, methodology, tools and ethics of scientific medical, clinical research.
<b>2-1-C-</b> Ethical and medicological principles of medical practice related to pediatric surgery field.	<b>2-1-C-</b> Mention ethical, medico logical principles and bylaws relevant to his practice in the field of pediatric surgery
<b>2-1-D-</b> Principles and measurements of quality in the pediatric surgery field.	<b>2-1-D-</b> Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of pediatric surgery.
<b>2-1-E-</b> Principles and efforts for maintains and improvements of public health.	<b>2-1-E-</b> Mention health care system, public health and health policy, issues relevant to this speciality and principles and methods of system – based improvement of patient care in common health problems of the field of pediatric surgery.
<b><u>2-2- Intellectual skills:</u></b>	<b><u>2-2- Intellectual skills:</u></b>
<b>2-2-A-</b> Application of basic and other relevant science to solve pediatric	<b>2-2-A-</b> Apply the basic and clinically supportive sciences which are

surgery related problems.	appropriate to pediatric surgery related conditions / problem / topics.
<b>2-2-B-</b> Problem solving based on available data.	<b>2-2-B-</b> Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical situation related to pediatric surgery.
<b>2-2-C-</b> Involvement in research studies related to the pediatric surgery.	<b>2-2-C-</b> Plan research projects.
<b>2-2-D</b> Writing scientific papers.	<b>2-2-D-</b> Write scientific paper.
<b>2-2-E-</b> Risk evaluation in the related clinical practice.	<b>2-2-E-</b> Participate in clinical risk management as a part of clinical governance.
<b>2-2-F-</b> Planning for performance improvement in the pediatric surgery field.	<b>2-2-F-</b> Plan for quality improvement in the field of medical education and clinical practice in pediatric surgery.
<b>2-2-G-</b> Creation and innovation in the pediatric surgery field.	<b>2-2-G-</b> Create / innovate plans, systems, and other issues for improvement of performance in his practice.
<b>2-2-H-</b> Evidence – based discussion.	<b>2-2-H-</b> Present and defend his / her data in front of a panel of experts.
<b>2-2-I-</b> Decision making in different situations related to pediatric surgery fields.	<b>2-2-I-</b> Formulate management plans and alternative decisions in different situations in the field of the pediatric surgery.

continuous <b>(ARS)</b>	continuous <b>(ILOs)</b>
<p><b><u>2-3- Clinical skills:</u></b></p> <p><b>2-3-A-</b> MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice.</p> <p><b>2-3-B-</b> Master patient care skills relevant to pediatric surgery for patients with all diagnoses and procedures.</p>	<p><b><u>2/3/1/Practical skills (Patient care :)</u></b></p> <p><b>2-3-1-A-</b> Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. <i>p.s.</i> Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice.</p> <p><b>2-3-1-B-</b> Provide extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to pediatric surgery.</p> <p><b>2-3-1-C-</b> Provide extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care.</p> <p><b>2-3-1-D-</b> Perform diagnostic and therapeutic procedures considered essential in the field of pediatric surgery.</p> <p><b>2-3-1-E-</b> Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.</p> <p><b>2-3-1-F-</b> Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in the pediatric surgery related situations.</p>

- 2-3-1-G-** Gather essential and accurate information about patients of the pediatric surgery related conditions.
- 2-3-1-H** Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the pediatric surgery related conditions.
- 2-3-1-I-** Develop and carry out patient management plans for pediatric surgery related conditions.
- 2-3-1-J-** Counsel and educate patients and their families about pediatric surgery related conditions.
- 2-3-1-K-** Use information technology to support patient care decisions and patient education in all pediatric surgery related clinical situations.
- 2-3-1-L-** Perform competently all medical and invasive procedures considered essential for the pediatric surgery related conditions / area of practices.
- 2-3-1-M-** Provide health care services aimed at preventing the pediatric surgery related health problems.
- 2-3-1-N-** Lead health care professionals, including those from other disciplines, to provide patient-focused care in pediatric surgery related conditions.

<p><b>2-3-C-</b> Write and evaluate reports for situations related to the field of pediatric surgery.</p>	<p><b>2-3-1-O-</b> Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive timely and legible medical records).</p>
<p><b><u>2-4- General skills</u></b></p> <p><b>2-4-A-</b> Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p>	<p><b><u>2/3/2 General skills</u></b></p> <p><b>2-3-2-A-</b> Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of pediatric surgery.</p> <p><b>2-3-2-B-</b> Appraise scientific evidence.</p> <p><b>2-3-2-C-</b> Continuously improve patient care based on constant self-evaluation and <u>life-long learning</u>.</p> <p><b>2-3-2-D.</b> Participate in clinical audit and research projects.</p> <p><b>2-3-2-E-</b> Practice skills of evidence-based Medicine (EBM).</p> <p><b>2-3-2-G-</b> Design logbooks.</p> <p><b>2-3-2-H-</b> Design clinical guidelines and standard protocols of management.</p> <p><b>2-3-2-I-</b> Appraise evidence from scientific studies related to the patients' health problems.</p>



<p><b>2-4-B-</b> Use competently all information sources and technology to improve his practice.</p>	<p><b>2-3-2-J-</b> Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.</p> <p><b>2-3-2-K-</b> Use information technology to manage information, access on-line medical information; for the important topics.</p>
<p><b>2-4-C-</b> Master skills of teaching and evaluating others.</p>	<p><b>2-3-2-F-</b> Educate and evaluate students, residents and other health professionals.</p>
<p><b>2-4-D-</b> Master interpersonal and communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals.</p>	<p><b>2-3-2-L-</b> Master interpersonal and communication skills that result in the effective <u>exchange of information and collaboration</u> with patients, their families, and health professionals, including:-</p> <ul style="list-style-type: none"> <li>• <u>Present</u> a case.</li> <li>• <u>Write</u> a consultation note.</li> <li>• <u>Inform patients</u> of a diagnosis and therapeutic plan Completing and maintaining comprehensive.</li> <li>• Timely and legible <u>medical records</u>.</li> <li>• Teamwork skills.</li> </ul> <p><b>2-3-2-M-</b> Create and sustain a therapeutic and ethically sound relationship with patients.</p> <p><b>2-3-2-N-</b> Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p><b>2-3-2-O-</b> Work effectively with others as a member or leader of a health care team or other professional group.</p>
<p><b>2-4-E-</b> Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities,</p>	<p><b>2-3-2-P-</b> Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.</p>

<p>adherence to ethical principles, and sensitivity to a diverse patient population.</p>	<p><b>2-3-2-Q-</b> Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.</p> <p><b>2-3-2-R-</b> Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.</p>
<p><b>2-4-F-</b> Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.</p> <p><b>2-4-G-</b> Participate in improvement of the education system.</p>	<p><b>2-3-2-S-</b> Work effectively in health care delivery settings and systems related to pediatric surgery including good administrative and time management.</p> <p><b>2-3-2-T-</b> Practice cost-effective health care and resource allocation that does not compromise quality of care.</p> <p><b>2-3-2-U-</b> Advocate for quality patient care and assist patients in dealing with system complexities.</p> <p><b>2-3-2-V-</b> Design, monitor and evaluate specification of under and post graduate courses and programs.</p>
<p><b>2-4-H-</b> Demonstrate skills of leading scientific meetings including time management</p>	<p><b>2-3-2-W-</b> Act as a chair man for scientific meetings including time management</p> <p><b>2-3-2-S-</b> Work effectively in health care delivery settings and systems related to pediatric surgery including good administrative and time management.</p>
<p><b>2-4-O-</b> Demonstrate skills of self and continuous learning .</p>	<p>From A to H</p>

### III-Program matrix Knowledge and understanding

Course	Program covered ILOs				
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E
Course 1 : Medical statistics		✓			
course 2 : Research Methodology		✓			
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research			✓		
course 4 Surgical Anatomy and Embryology	✓				
course 5 Surgical Pathology	✓				
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓

### Intellectual

Course	Program covered ILOs								
	2/2/A	2/2/B	2/2/C	2/2/D	2/2/E	2/2/F	2/2/G	2/2/H	2/2/I
Course 1 : Medical statistics			✓	✓				✓	
course 2 : Research Methodology			✓	✓				✓	
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								✓	
course 4 Surgical Anatomy and Embryology	✓	✓							
course 5 Surgical Pathology	✓	✓							
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓	✓	✓	✓	✓

## Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/ A	2/3/1/ B	2/3/1/ C	2/3/1/ D	2/3/1/ E	2/3/1/ F	2/3/1/ G	2/3/1/ H
Course 1 : Medical statistics								
course 2 : Research Methodology								
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				✓				
course 4 Surgical Anatomy and Embryology							✓	
course 5 Surgical Pathology							✓	
Course 6 : Pediatic surgery	✓	✓	✓	✓	✓	✓	✓	✓

## Patient care

Course	Program covered ILOs						
	2/3/1/I	2/3/1/J	2/3/1/K	2/3/1/L	2/3/1/M	2/3/1/N	2/3/1/O
Course 1 : Medical statistics							
course 2 : Research Methodology							
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	✓						✓
course 4 Surgical Anatomy and Embryology							
course 5 Surgical pathology							
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓	✓	✓

## General Skills

Course	Program covered ILOs							
	2/3/2/ A	2/3/2/ B	2/3/2/ C	2/3/2/ D	2/3/2/ E	2/3/2/ F	2/3/2/ G	2/3/2/ H
Course 1 : Medical statistics		✓						
course 2 : Research Methodology		✓		✓	✓			
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research								
course 4 Surgical Anatomy and Embryology								
course 5 Surgical Pathology								
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓	✓	✓	✓

## General skill

Course	Program covered ILOs							
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O	2/3/2/P
Course 1 : Medical statistics	✓	✓	✓					
course 2 : Research Methodology	✓	✓						
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research				✓				
course 4 Surgical Anatomy and Embryology			✓	✓			✓	✓
course 5 Surgical Pathology			✓	✓			✓	✓
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓	✓	✓	✓

## General skills

Course	Program covered ILOs						
	2/3/2/Q	2/3/2/R	2/3/2/S	2/3/2/T	2/3/2/U	2/3/2/V	2/3/2/W
Course 1 : Medical statistics							
course 2 : Research Methodology							
course 3 : Medicolegal Aspects & Ethics in Medical Practice and Scientific Research							
course 4 Surgical Anatomy and Embryology	✓		✓				
course 5 Surgical Pathology	✓		✓				
Course 6 : Pediatric surgery	✓	✓	✓	✓	✓	✓	✓



Annex 7,  
Additional information:

**+ Example:**

**+ Department information:**

Pediatric surgical unit is oldest unit in General surgery department. It is the best and most challenging center in Upper Egypt. It is separated from general surgery and new affiliated to children hospital at the 4<sup>th</sup> floor, it has; 8 wards for inpatient containing 60 beds; operative section with 5 operative theaters; septic section with one operative theater; administrative section; out-patient clinic working 5 days per week; and secretary section. The unit receive pediatric surgical emergency every day

**+ Staff members:**

**Head of Pediatric Surgical unit**

Prof. Almoataz Ahmed Altayeb

**Team of Pediatric Surgery**

Prof. Dr Ahmad Altyb

Prof. Dr Mahmoud Mohamed mostafa

Dr. Ibrahim Ali Ibrahim

Dr. Moataz Ahmad Eltyb

**The team also contains two assistant lectures and three residents**

**+ Opportunities within the department:**

**+ Department quality control insurance for completing the program:**

**End of the program specification)**