



كلية الطب
وحدة ضمان الجودة



Faculty of Medicine
Quality Assurance Unit

MASTER (MSC) DEGREE PROGRAM AND COURSES SPECIFICATIONS FOR PEDIATRICS

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

Pediatrics department
Faculty of medicine
Assiut University
2022-2023

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Master degree of Pediatrics

A. Basic Information

-  **Program Title:** Master degree of Pediatrics
-  **Nature of the program:** Single.
-  **Responsible Department:** Pediatric Department, Faculty of Medicine, Assiut University
-  **Program Academic Director (Head of the Department):**
Prof. Emad El-Deen Mahmoud Hammad
-  **Coordinator (s):**
Principle coordinator: Prof. Hekma Saad Farghaly
Assistant coordinator(s) Dr. Safwat Mohamed Abdelaziz
Dr. Ashraf Mohamed El-Saghier
-  **Internal evaluators:** Prof. Fardous Abdelaal
Prof. Faida Mostafa
-  **External evaluator:** Prof. Magdi Mostafa – Minia University
-  **Date of Approval by the Faculty of Medicine Council of Assiut University:** 22-10-2017
-  **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:** 27-11-2022
-  **Total number of courses:** 7 courses + one elective course

B. Professional Information

1- Program aims

1/1. To enable candidates to acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Pediatric Medicine.

1/2. Provide candidates with fundamental knowledge of Pediatric Intensive Care Medicine as regards; dealing with critically ill pediatric patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.

1/3. To introduce candidates to the basics of scientific medical research.

1/4. To enable candidates starting professional careers as specialists in Egypt and making them recognized as specialists abroad.

1/5. To enable candidates to pursue higher studies and subspecialties.

1/6. To enable candidates to understand and get the best of published scientific research and do their own.

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

2/1. Knowledge and understanding:

A. Explain the essential facts and principles of relevant basic sciences including Physiology, Microbiology, Pharmacology, Pathology, Basic of Pediatric medicine and Medical Reports related to Pediatrics.

- B. Mention essential facts of clinically supportive sciences including, Clinical Pathology, Public Health & Radiology related to Pediatrics.
- C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of common diseases and situations related to Pediatrics.
- D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Pediatrics.
- E. Mention the basic ethical and medicolegal principles that should be applied in practice and relevant to the Pediatrics.
- F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatrics.
- G. Mention the ethical and scientific principles of medical research methodology.
- H. State the impact of common health problems in the field of Pediatrics on the society and how good clinical practice improves these problems.

2/2. Intellectual outcomes

- A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Pediatrics.
- B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Pediatrics.
- C. Design and /or present a case or review (through seminars/journal clubs) in one or more of common clinical problems relevant to the Pediatrics field.
- D. Formulate management plans and alternative decisions in different situations in the field of the Pediatrics.

2/3. Skills

2/3/1 Practical skills (Patient Care)

- A. Obtain proper history and examine patients in caring and respectful behaviors.
- B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Pediatrics.
- C. Carry out patient management plans for common conditions related to Pediatrics.
- D. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatrics
- E. Perform competently non invasive and invasive procedures considered essential for the Pediatrics.
- F. Provide health care services aimed at preventing health problems related to Pediatrics.
- G. Provide patient-focused care in common conditions related to Pediatrics, while working with health care professionals, including those from other disciplines
- H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining 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. Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).
- B. Appraises evidence from scientific studies.
- C. Conduct epidemiological Studies and surveys.
- D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
- E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

Interpersonal and Communication Skills:

- F. Maintain therapeutic and ethically sound relationship with patients.
- G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.
- H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.
- I. Work effectively with others as a member of a health care team or other professional group.

Professionalism

- J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society
- K. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices
- L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities

Systems-Based Practice

M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.

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

O. Assist patients in dealing with system complexities.

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

Academic standards for master degree in Pediatrics

Assiut Faculty of Medicine developed master 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 17-6- 2009. 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).
http://www.acgme.org/acWebsite/navPages/nav_Public.asp
2. University of Michigan Health System, Pediatrics & communicable diseases Fellowship Program
<http://www.med.umich.edu/pediatrics/edu/index.htm>

Comparison between program and external reference		
Item	Pediatrics program	University of Michigan Health System, Pediatrics & communicable diseases Fellowship Program
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	3-5 years	3 years
Requirement	Different	Different
Program structure	Different	Different

5. Program Structure and Contents

A. Duration of program: 3 – 5 years

B. Structure of the program:

Total contact number of credit points: 180 point (20 out of them for thesis)

Didactic# 40 (22.2 %), practical 120 (66.7%), thesis 20 (11.1%), total 180

First part

Didactic 14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40

Second part

Didactic 24 (20%), practical 96 (80 %), total 120

Didactic (lectures, seminars, tutorial)

According the currently applied credit points bylaws:

Total courses: 160 credit point

Compulsory courses: 98.9%

Elective course: 2 credit point =1.25%

	Credit points	% from total
Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
Speciality courses	134	74.5%
Others (Computer, ...)		
Field training	120	66.7%
Thesis	20	11.1%

C. Program Time Table

Duration of program 3 years maximally 5 years divided into

- **Part 1: (One year)**

Program-related basic science courses and ILOs

Students are allowed to sit the exams of these courses after 12 months from applying to the MSc degree.

One elective course can be set during either the 1st or 2nd parts.

- **Thesis**

For the MSc thesis;

MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

It should be discussed and accepted before passing the second part of examination)

- **Part 2 (2 years)**

Program –related Speciality courses and ILOs

Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

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

Total degrees 1900 marks.

700 marks for first part

1200 for second part

Written exam 40% - 70%.

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

D. Curriculum Structure: (Courses):

Year 1

The first year of the fellowship is primarily for basic science related medical knowledge and Clinical Pathology, Public Health & Radiology (studied in speciality courses over 12 months in collaboration with basic sciences department and Clinical Pathology, Public Health & Radiology Departments of Assiut Faculty of Medicine) and a clinical year during which the fellows gain experience with a wide variety of patients in inpatient and outpatient settings, develop proficiency in the performance and appropriate utilization of various procedures, and develop proficiency in the utilization and interpretation of pediatric laboratory tests . Throughout the year, emphasis is placed on developing: 1) an understanding of basic mechanisms and pathophysiology of Pediatric disease and critical illness ; 2) the ability to efficiently formulate clinical assessments and therapeutic plans; 3) the ability to critically analyze the relevant medical literature; and 4) skills in communicating with nursing and medical staff as well as house staff.

The first year fellow spends the year rotating among four different services: 1) Pediatric Wards; 2) Pediatric Emergency Unit; 3)

Pediatric Gastroenterology Unit and 4) Pediatric outpatient clinics all at Assiut University Children Hospital. These rotations are briefly described below.

Years 2 and 3

Although the primary focus of the second and third year is the development of skills and experience in research (see below), senior fellows continue to participate in clinical activities and certain procedures. First, they maintain their longitudinal outpatient and inpatient clinic experience throughout these years. Senior fellows will also actively participate in the regular weekly scientific seminars and collaborate with those fellows in their first year. In addition, fellows rotate through the different inpatient clinical services approximately two months on clinical rotations. This rotation complements the previous inpatient and outpatient experiences.

Approximately by the end of the first year, fellows are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members within the Division, or by one divisional faculty member and a collaborator from another unit, is appropriate. By the beginning of the second year, the fellow presents a conference in which he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation. The faculty members and fellows in attendance provide feedback to the fellow and supervisors about the proposed project; this process of peer review provides a useful experience for the fellow and often strengthens the experimental approach.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, and collaborating investigators. The trainee also participates in laboratory meetings and journal clubs specific to

individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of the investigative endeavor. The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the research training period, it is anticipated that the fellow will assume increasing intellectual responsibility and technical independence.

Research Pathway

Selection of a research project and supervisors is subject to the approval of the pediatric Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect clinical trial, meta-Analysis/ systematic Review, clinical audit or epidemiological studies -based research training pathways. For all Master degree students, a research advisory committee will be selected by the fellow based on the approved regulatory rules of the faculty council. This committee will monitor the progress of research fellows and provide advice regarding research training and career development

 courses of the program:

Courses and student work load list	Course Code	Credit points		
		Didactic [#]	training	Total
First Part				
Basic science courses (8CP)				
1. Course :	PED225A#	3		3
Unit 1: Physiology		1.5		1.5
Unit 2: Microbiology		1.5		1.5
2. Course 2:	PED225B#	2.5		2.5
Unit 1: Pharmacology		1.25		1.25
Unit 2: Pathology		1.25		1.25
3. Course 3: Basic of Pediatric medicine	PED225C	1.5		1.5
4. Course 4: Medical Reports	PED210	1		1
General clinical compulsory courses (6 points)				
5. Course 5: Clinical Pathology	PED231	3		3
6. Course 6:	PED225D#	3		3
Unit 1: Public Health		1.5		1.5
Unit 2: Radiology		1.5		1.5
Elective courses*	2 CP			
Clinical training and scientific activities:				
Clinical training in General clinical compulsory courses (10 CP)				
Clinical Pathology	PED231		5	5
- Public Health	PED225D#		2.5	2.5
Radiology	PED225D#		2.5	2.5
Clinical training and scientific activities in Speciality course (14 CP)				14
(Pediatric Medicine Advanced)	PED225E		14	
Total of the first part		16	24	40

Second Part	Speciality course 24 CP Speciality Clinical Work 96 CP			
Speciality Courses 7) Course 7 Pediatric Medicine Advanced *	PED225E	24		24
Training and practical activities in speciality (96 CP) (Pediatric Medicine Advanced)			96	96
Total of the second part		24	96	120
Thesis	20 CP			
Total of the degree	180 CP			

Didactic (lectures, seminars, tutorial)

* Elective courses can be taken during either the 1st or 2nd 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#:

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

One of the above mentioned courses are prerequisites for fulfillment of the degree.

Thesis:

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

Course 7 Pediatric Medicine Advanced *

Units	% of total mark	Years	Core Credit Points		
			Didactic	training	total
Unit 1: General Ped. Medicine	10%	1	3.5	12	15.5
Unit 2: Ped. Emergencies	9%	1	2	10	12
Unit 3: Ped. Gastroenterolgy & Hepatology	9%	1	2	10	12
Unit 4: Ped. Hematology & Onchology	9%	2	2	10	12
Unit 5: Ped. Nephrology & Urology	9%	2	2	10	12
Unit 6: Ped. Neurology & Psychology	9%	2	2.5	10	12.5
Unit 7: Ped. Pulmonology & TB	9%	2	2	10	12
Unit 8: Ped. Cardiology	9%	3	2	10	12
Unit 9: Ped. Endocrinology & Diabetes	7%	3	2	4	6
Unit 10: Ped. Intensive Care Unit	10%	3	2	12	14
Unit 11: Neonatology & NICU	10%	3	2	12	14
Total: 11 Unit	100%	3 years	24	110	134

** Different Courses ILOs are arranged to be studied and assessed in the 1st and 2nd parts of the program as scheduled in the program time table.

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

7-Admission requirements



Admission Requirements (prerequisites) if any :

I. General Requirements:

- MBBCh Degree from any Egyptian Faculties of Medicine
- Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
- One year appointment within responsible department (for non Assiut University based registrars)

II. Specific Requirements:

- Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working residents 1 weeks leave prior to first part and 2 week prior to 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 could be set at 12 months from registering to the MSc degree.
- ✚ Examination of the second part cannot be set before 3 years from registering to the degree.
- ✚ Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- ✚ The minimum duration of the program is 3 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 MSc_thesis.

9- Program assessment methods and rules (Annex IV)

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

Weighting of assessments:

	Course Code	Written Exam	Degree		Total
			Oral Exam *	Practical /Clinical Exam	
First Part					
Basic science courses:					
Course 1 : Unit 1: Physiology Unit 2: Microbiology	PED225A#	100 50 50	50 25 25		75 75
Course 2: Unit 1: Pharmacology Unit 2: Pathology	PED225B#	75 37.5 37.5	50 25 25		125 62.5 62.5
Course 3: Basic of Pediatric medicine	PED225C	50	25		75
Course 4: Medical Reports	PED210	50			50
General clinical courses					
Course 5: Clinical Pathology	PED231	100	25	25	150
Course 6: Unit 1: Public Health Unit 2: Radiology	PED225D#	75 37.5 37.5	30 25 15	45 22.5 22.5	150 75 75
Total of the first part					700
Second Part					
Speciality Courses:					
Course 6 Pediatric Medicine Advanced* Paper 1 Paper 2 Paper 3 Paper 4 (Cases & MCQs)	-PED225E	480 120 120 120 120	360	360	1200
Total of the degree					1900
Elective course		50	50		100
Courses		Degrees			

* 25% of the oral exam for assessment of logbook

Total degree 1900

700 marks for first part

1200 for second part

Written exam 40% (480 marks).

Clinical /practical and oral exams 60% (720 marks)

+ Examination system:

➤ **First part:**

- Written exam 3 hours in Physiology and Microbiology + Oral exam
- Written exam 3 hours in Pharmacology and Pathology + Oral exam
- Written exam 2 hours in Basic of Pediatric medicine + Oral exam
- Written exam 1 hours in Medical Reports + Oral exam
- Written exam 3 hours in Clinical Pathology + Oral exam+ Clinical exam
- Written exam 3 hours in Public Health and Radiology + Oral exam+ Clinical exam

➤ **Second part:**

- Written exam four papers 3 hours for each in Pediatric Medicine (Paper 1, Paper 2, Paper 3, Paper 4(Cases and MCQs)+ Oral exam+ Clinical & Practical exam

➤ **Elective courses**

+ Written exam one paper 1 hour in Elective course + Oral & Practical exam

10-Program evaluation

By whom	Method	Sample
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.

Contributor	Name	Signature	Date
Program Principle Coordinator:	Prof. Hekma Saad Farghaly		September 2022
Head of the Responsible Department (Program Academic Director):	Prof. Emad El-Deen Mahmoud Hammad		September 20 22

Annex 1, Specifications for Courses / Modules

Annex 1: specifications for courses/

First Part

Course 1, Physiology and Microbiology

*Name of department: **Pediatrics***

Faculty of medicine, Assiut University

Course 1, Unit 1, Physiology

1. Unit data

- + **Unit Title:** Physiology
- + **Unit code:** PED225A#
- + **Speciality :** Pediatrics
- + **Number of credit point:** 1.5 credit point, didactic 1.5 credit point (100%)
- + **Department (s) delivering the unit:** Physiology Department with Pediatric Department
- + **Coordinator (s):** Staff members of Physiology Department in conjunction with Pediatric Department as annually approved by both departments councils
- + **Date last reviewed:** September 2022
- + **Requirements (prerequisites) if any :** None
- + **Requirements from the students to achieve unit ILOs are** clarified in the joining log book.

2. Unit Aims

The student should acquire the physiological facts necessary for Pediatrics.

3. Unit intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Describe basic principles of ❖ Cardiovascular : – Arterial blood pressure & heart rate - Physiological variation of blood pressure - Factors maintaining ABP - Nervous, hormonal and other factors that regulate HR - Normal ECG ❖ CNS – Regulation of body temperature. - Abnormalities of body temperature ❖ Blood – Erythropoiesis and factors affecting it. – Functions of RBCs – Characters and functions of neutrophils, basophiles, eosinophiles, monocytes, and lymphocytes – Normal hemostatic mechanisms. – Functions of platelets. ❖ Respiration – Hypoxia : definition, types, and effects of	Lectures	Written and oral examination Log book

hypoxia – Cyanosis: definition and causes. – Pulmonary function tests. – Regulation of respiration. ❖ Endocrine – Growth hormone: functions, control of secretion, and defects of secretion. – Thyroid hormone: functions, control of secretion, and defects of secretion. – Glucocorticoids: functions, control of secretion, and defects of secretion – Insulin: functions, control of secretion, and regulation of blood glucose. ❖ Kidney – Glomerular filtration rate. – Clearance.		
B. Illustrate Physiologic details of : - Acid base balance - Pathways of coagulation mechanisms		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of Physiology with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pediatrics		

C- Practical skills (Patient Care)

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Unit Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
❖ Cardiovascular:	A	A,B	-	A-D
Arterial blood pressure & heart rate	A	A,B	-	A-D
Physiological variation of blood pressure	A	A,B	-	A-D
Factors maintaining ABP	A	A,B	-	A-D
Normal ECG	A	A,B	-	A-D
❖ CNS	A	A,B	-	A-D
Regulation of body temperature.	A	A,B	-	A-D
Abnormalities of body temperature	A	A,B	-	A-D
❖ Blood	A,B	A,B	-	A-D
Erythropoiesis and factors affecting it.	A	A,B	-	A-D
Functions of RBCs	A	A,B	-	A-D
Characters and functions of neutrophils, basophiles, eosinophiles, monocytes, and lymphocytes	A	A,B	-	A-D
Normal hemostatic mechanisms.	A	A,B	-	A-D
Functions of platelets.	A	A,B	-	A-D
Pathways of coagulation mechanisms	B	A,B	-	A-D

❖ Respiration	A	A,B	-	A-D
Hypoxia : definition, types, and effects of hypoxia	A	A,B	-	A-D
Cyanosis: definition and causes.	A	A,B	-	A-D
Pulmonary function tests.	A	A,B	-	A-D
Regulation of respiration.	A	A,B	-	A-D
❖ Endocrine	A	A,B	-	A-D
Growth hormone: functions, control of secretion, and defects of secretion.	A	A,B	-	A-D
Thyroid hormone: functions, control of secretion, and defects of secretion.	A	A,B	-	A-D
Glucocorticoids: : functions, control of secretion, and defects of secretion	A	A,B	-	A-D
Insulin: : functions, control of secretion, and regulation of blood glucose.	A	A,B	-	A-D
❖ Kidney	A,B	A,B	-	A-D
Glomerular filtration rate.	A	A,B	-	A-D
Clearance.	A	A,B	-	A-D
Acid base balance	B	A,B	-	A-D

5. Unit methods of teaching/learning

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

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods

- i. **Assessment tools:**
 - a. Written and oral examination
 - b. Log book
- ii. **Time schedule:** At the end of the first part
- iii. **Marks:** 75

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- Medical physiology books by Staff Members of the Department of Medical physiology -Assiut University.

ii. Essential books

- Fundamentals of Pediatrics; book of staff members of the department.
- Guyton AC, Hall JE: Textbook of Medical Physiology, 13th ed. Saunders, 2015.

iii. Recommended books

- Nelson textbook of pediatrics , 2020

iv. Periodicals, Web sites, ... etc

- Pediatrics
- Pediatric clinic of North America
- American journal of physiology
- Websites :<http://www.ncbi.nlm.gov/>

v. others : None

Course 1, Unit 2, Microbiology

1. Unit data

- + **Unit Title: Microbiology & Immunology**
- + **Unit code: PED225A#**
- + **Speciality : Pediatrics**
- + **Number of credit point: 1.5 credit point, didactic 1.5 credit point (100%)**
- + **Department (s) delivering the unit: Microbiology & Immunology Department with Pediatric Department**
- + **Coordinator (s): Staff members of Microbiology & Immunology Department with Pediatric Department**
- + **Date last reviewed: September 2022**
- + **Requirements (prerequisites) if any : None**
- + **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit Aims

The student should acquire the facts of Microbiology & Immunology necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Mention basic principles of – Virulence factors of microorganisms. – Mechanism of action of antimicrobial drugs – Mechanism of resistance to antimicrobial drugs. – Nonspecific immunity – Specific immunity : Cells of the immune system : B lymphocytes, T lymphocytes, natural killer cells & macrophages Immunoglobulins – Complement system. – Hypersensitivity reactions. – Autoimmune diseases.	Lectures	Written and oral examination Log book
B. Describe the microbiologic details of - Hospital acquired infections.		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of microbiology & immunology with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills (Patient Care)

Practical = 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ Learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Unit Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Virulence factors of microorganisms.	A	A	-	A-E
Mechanism of action of antimicrobial drugs	A	A	-	A-E
Mechanism of resistance to antimicrobial drugs.	A	A	-	A-E
Nonspecific immunity	A	A	-	A-E
Specific immunity :	A	A	-	A-E
Cells of the immune system : B lymphocytes, T lymphocytes, natural killer cells & macrophages	A	A	-	A-E
Immunoglobulins	A	A	-	A-E
Complement system.	A	A	-	A-E
Hypersensitivity reactions.	A	A	-	A-E
Autoimmune diseases.	A	A	-	A-E
Hospital acquired infections.	B	A	-	A,B,D,E

5. Unit methods of teaching/learning

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

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods

ii. Assessment tools:

- a. Written and oral examination
- b. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 75

8. List of references

i. Lectures notes

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

ii. Essential books

- Fundamentals of Pediatrics; book of staff members of the department.

iii. Recommended books

- Sherris Medical Microbiology, Seventh Edition, 2018
- Nelson textbook of pediatrics , 2020

iv. Periodicals, Web sites, ... etc

- Journal of clinical microbiology
- Journal of Immunology
- Web site :<http://mic.sgmjournals.org/>

iii. others : None

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	Head of the Department:
Date:	Date :
Unit 2 Coordinator:	Head of the Department:
Date:	Date :

Course 2, Pharmacology and Pathology

*Name of department: **Pediatrics***

Faculty of medicine, Assiut University

Course 2, Unit 1. Pharmacology

1. Unit data

- + Unit Title: Pharmacology
- + Unit code: -PED225B#
- + Speciality : Pediatrics
- + Number of credit points: 1.25 credit point, didactic 1.25 credit point (100%)
- + Department (s) delivering the unit: Pharmacology Department with Pediatric Department
- + Coordinator (s): Staff members of Pharmacology Department in conjunction with Pediatric Department
- + Date last reviewed: September 2022
- + Requirements (prerequisites) if any : None
- + Requirements from the students to achieve unit ILOs are clarified in the joining log book.

2. Unit Aims

The student should acquire the professional knowledge and facts of pharmacology necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Illustrate basic principles of – Pharmacokinetics and pharmacodynamics(basic concepts) – Drug treatment of heart failure (Digitalis & diuretics). – Anticonvulsants. – Antimicrobial drugs. – Bronchodilators. – Nonsteroidal anti-inflammatory drugs	Lectures	Written and oral examination Log book
B. Describe Pharmacological <i>details</i> of - Corticosteroids		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of Pharmacology with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills (Patient Care)

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ Learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

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

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Unit Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Pharmacokinetics and pharmacodynamics(basic concepts)	A	A	-	A-D
Drug treatment of heart failure (Digitalis & diuretics).	A	A	-	A-D
Anticonvulsants.	A	A	-	A-D
Antimicrobial drugs.	A	A	-	A-D
Bronchodilators.	A	A	-	A-D
Corticosteroids	B	A	-	A,B,D
Nonsteroidal anti-inflammatory drugs	A	A	-	A-D

5. Unit methods of teaching/learning

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

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods

iv. Assessment tools:

- a. Written and oral examination
- b. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 62.5

8. List of references

i. Lectures notes

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

ii. Essential books

Basic & Clinical Pharmacology, 15th Edition. 2021

By Bertram G. Katzung, Todd W. Vanderah

iii. Recommended books

- Godman Gilmans. The pharmacological therapeutics. 13th Ed, 2018
- Nelson textbook of pediatrics , 2020

iv. Periodicals, Web sites, ... etc

- British journal f pharmacology
- Pharmacological review
- <http://www.ncbi.nlm.gov/>

v. others : None

Course 2, Unit 2, Pathology

1. Unit data

- + **Unit Title:** Pathology
- + **Unit code:** -PED225B#
- + **Speciality :** Pediatrics
- + **Number of credit points:** 1.25 credit point, didactic 1.25 credit point (100%)
- + **Department (s) delivering the unit :** Pathology Department with Pediatric Department
- + **Coordinator (s):** Staff members of Pathology Department with Pediatric Department
- + **Date last reviewed:** September 2022
- + **Requirements (prerequisites) if any :** None
- + **Requirements from the students to achieve unit ILOs are** clarified in the joining log book.

2. Unit Aims

The student should acquire the facts of Pathology necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Mention basic principles of – Pathology of acute inflammation – TB infection – Circulatory disturbances: edema, thrombosis, embolism – Cardiovascular diseases: ▪ rheumatic fever ▪ Cardiomyopathies ▪ Endocarditis, myocarditis & pericarditis – Respiratory system : ▪ bronchial asthma ▪ Pneumonia ▪ Bronchiectasis and lung abscess – Renal diseases : ▪ glomerulonephritis ▪ Nephrotic syndrome ▪ Small and large kidney – CNS : meningitis – Lymphatic system : ▪ Enlarged lymph nodes and spleen ▪ Leukemia and lymphoma	Lectures	Written and oral examination Log book

– GIT and liver : ▪ dysentery ▪ Hepatitis ▪ Cirrhosis		
B. Describe the details of: - Common Pediatric tumors: Brain tumors, Wilms tumor, neuroblastoma, sarcoma.		

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 diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills (Patient Care)

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A.	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Unit Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
Pathology of acute inflammation	A	A	-	A-D
TB infection	A	A	-	A-D
Circulatory disturbances: edema, thrombosis, embolism	A	A	-	A-D
Common Pediatric tumors: Brain tumors, Wilms tumor, neuroblastoma, sarcoma.	B	A	-	A-D
Cardiovascular diseases:				
rheumatic fever	A	A	-	A-D
Cardiomyopathies	A	A	-	A-D
Endocarditis, myocarditis & pericarditis	A	A	-	A-D
Respiratory system :				
bronchial asthma	A	A	-	A-D
Pneumonia	A	A	-	A-D
Bronchiectasis and lung abscess	A	A	-	A-D
Renal diseases :				
Glomerulonephritis	A	A	-	A-D
Nephrotic syndrome	A	A	-	A-D
Small and large kidney	A	A	-	A-D
CNS : meningitis	A	A	-	A-D
Lymphatic system :				
Enlarged lymph nodes and	A	A	-	A-D

spleen				
Leukemia and lymphoma	A	A	-	A-D
GIT and liver : A-E				
Dysentery	A	A	-	A-D
Hepatitis	A	A	-	A-D
Cirrhosis	A	A	-	A-D

5. Unit methods of teaching/learning

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

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Unit assessment methods

v. Assessment tools:

- a. Written and oral examination
- b. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 62.5

8. List of references

i. Lectures notes

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

ii. Essential books

- Fundamentals of Pediatrics; book of staff members of the department.
- Rosai and Ackerman's Surgical Pathology Juan Rosai, Mosby 2004

iii. Recommended books

- Nelson Text book of Pediatrics, 2020
- Sternberg's Diagnostic surgical Pathology 7th edition, 2021

iv. Periodicals, Web sites, ... etc

- Pediatrics
- Pediatric clinic of North America
- American journal of pathology
- Pathology journal
- Human pathology journal
- Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

v. others : None

9. Signatures

Course Coordinator	
Unit 1 Coordinator: Dr.	Head of the Department: Prof.
Date :	Date:
Unit 2 Coordinator: Dr.	Head of the Department: Prof.
Date:	Date:

Course 3- Basics of Pediatric Medicine

Name of department: Pediatrics

Faculty of medicine, Assiut University

1. Course data

- + **Course Title:** Basics of Pediatric Medicine
- + **Course code:** PED225C
- + **Speciality :** Pediatrics
- + **Number of credit points:** 1.5 credit point, didactic 1.5 credit point (100%)
- + **Department (s) delivering the course:** Pediatric Department
- + **Coordinator (s):** Staff members of Pediatric Department
- + **Date last reviewed:** September 2022
- + **Requirements (prerequisites) if any :** None
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book**

2. Course Aims

The student should acquire the facts of basics of Pediatric Medicine necessary for Pediatrics

3. Course intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe basic principles of:- - Pattern of inheritance - Genetic counseling. - Carrier detection of genetic diseases. - Application of recombinant DNA technology. - Treatment of genetic diseases. - Fetal growth. - Threats to fetal growth. - Assessment of fetal well being and maturity.	Lectures	Written and oral examination Log book
B. Mention the Mental development in the first 5 years of life.		
C. State update and evidence based Knowledge of - Gene therapy		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of basics of pediatric medicine with clinical reasoning, diagnosis and management of common diseases related to Pediatrics.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pediatrics		

C- Practical skills (Patient Care)

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ Learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

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

Systems-Based Practice

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

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
Pattern of inheritance	A	A, B	-	A-D
Genetic counseling.	A	A, B	-	A-D
Carrier detection of genetic diseases.	A	A, B	-	A-D
Application of recombinant DNA technology.	A	A, B	-	A-D
Treatment of genetic diseases.	A	A, B	-	A-D
Fetal growth.	A	A, B	-	A-D
Threats to fetal growth.	A	A, B	-	A-D
Assessment of fetal well being and maturity.	A	A, B	-	A-D
Mental development in the first 5 years of life	B	A, B	-	A.,B,D
Genetic counseling.	A	A, B	-	A-D
Carrier detection of genetic diseases.	A	A, B	-	A-D
Application of recombinant DNA technology.	A	A, B	-	A-D
Gene Therapy	C	A, B	-	A.,B,D

5. Course methods of teaching/learning

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

6. Course methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Course assessment methods

vi. Assessment tools:

- a. Written and oral examination
- b. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 75

8. List of references

i. Lectures notes

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

ii. Essential books

Fundamentals of Pediatrics; book of staff members of the department.

iii. Recommended books

Nelson textbook of pediatrics , 2020

iv. Periodicals, Web sites, ... etc

- Periodicals
 - Pediatrics
 - Pediatric clinic of North America
- Web Sites:
 - www.pediatriceducation.com
 - www.pediatrics.com

v. Others : None

9. Signatures

Course Coordinator:

.....

Head of the Department:

.....

Date:

Date:

Course 4: Medical Reports

Name of department: Pediatrics

Faculty of medicine, Assiut University

1. Course data

- + **Course Title:** Basics of Pediatric Medicine
- + **Course code:** PED210
- + **Speciality :** Pediatrics
- + **Number of credit points:** 1.5 credit point, didactic 1.5 credit point (100%)
- + **Department (s) delivering the course:** Forensic Medicine and clinical toxicology Department and Pediatric Department
- + **Coordinator (s):** Staff members of Forensic Medicine and clinical toxicology Department i with Pediatric Department
- + **Date last reviewed:** September 2022
- + **Requirements (prerequisites) if any :** None
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book**

2. Course Aims

The student should acquire the facts of basics of Pediatric Medicine necessary for Pediatrics

3. Course intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe basic principles of:- أخلاقيات ممارسة مهنة الطب لائحة مزاول مهنة الطب قوانين الدولة التي يخضع لها الطبيب كتابة التقارير الطبية كتابة الإقرارات شهادة الوفاة Toxicology	Lectures	Written and oral examination Log book

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of Medical reports with clinical reasoning, diagnosis and management of common diseases related to Pediatrics.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pediatrics		

C- Practical skills (Patient Care)

Practical: 0 credit point

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ Learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

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

Systems-Based Practice

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

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
خلاقيات ممارسة مهنة الطب	A	A, B	-	A-D
لائحة مزاولة مهنة الطب	A	A, B	-	A-D
قوانين الدولة التي يخضع لها الطبيب	A	A, B	-	A-D
كتابة التقارير الطبية	A	A, B	-	A-D
كتابة الإقرارات	A	A, B	-	A-D
شهادة الوفاة	A	A, B	-	A-D
Toxicology	A	A, B	-	A-D

5. Course methods of teaching/learning

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

6. Course methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)

7. Course assessment methods

vii. Assessment tools:

- a. Written and oral examination
- b. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 50

8. List of references

i. Lectures notes

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

ii. Essential books

- Medical Ethics Manual. World medical association. Third edition 2015.
- Medical ethics and law. Dominic Wilkinson, 3rd edition 2019.

iii. Recommended books

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

iv. Periodicals, Web sites, ... etc

- 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. As :
Forensic Science International Journal.
Toxicology Letter.

v. Others : None

9. Signatures

Course Coordinator:	Head of the Department:
Date:	Date:

Course 5, Clinical Pathology

1. Course data

- + **Course Title: Clinical Pathology**
- + **Course code: PED231**
- + **Speciality : Pediatrics**
- + **Number of credit points 8 credit points, didactic 3 credit point (37.5%)and training 5(62.5%)**
- + **Department (s) delivering the course: Clinical Pathology
Department with Pediatric Department**
- + **Coordinator (s): Staff members of Clinical Pathology
Department with Pediatric Department**
- + **Date last reviewed: September 2022**
- + **Requirements (prerequisites) if any : None**
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book**

2. Unit Aims

The student should acquire the facts of Clinical Pathology necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	<i>Methods of Evaluation</i>
A. Illustrate basic principles of 1. Hematology including: – Normal blood count in pediatrics. – Abnormalities of RBCs: Deficiency anemia, hemolytic anemia, and anemia of chronic infections. – Abnormalities of WBCs (total & differential) – Abnormalities of platelets number or function. – Bone marrow failure or infiltrations. – Coagulation defects. – Blood transfusion. 2. Chemical pathology including: – Abnormalities of blood glucose levels. – Kidney function tests. – Liver function tests. – Electrolytes disturbances (Na, K, Ca, Mg, Ph) 3. Normal and abnormal CSF	Lectures	Written and oral examination Log book
2. Describe the details of: Types of anemia		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of clinical pathology with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Master of the basic and modern professional skills: Training on interpretation of hematological lab reports for diagnosis: -Bone marrow failure (aplastic anemia). - Deficiency anemia, hemolytic anemia, and anemia of chronic infections. -Abnormalities of platelets number or function. - Coagulation defects. - Abnormalities of WBC.	-Laboratory work	-Assessment of practical skills -Log book
B. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatrics		

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
1. Hematology including:				
Normal blood count in pediatrics.	A	A	B	A-D
Abnormalities of RBCs: Deficiency anemia, hemolytic anemia, and anemia of chronic infections.	B	A	A,B	A-D
Abnormalities of WBCs (total & differential)	A	A	A	A-D
Abnormalities of platelets number or function.	A	A	A	A-D
Bone marrow failure or infiltrations.	A	A	A	A-D
Coagulation defects.	A	A	A	A-D
Blood transfusion.	A	A	A	A-D
2. Chemical pathology including:				
Abnormalities of blood glucose levels.	A	A	A	A-D
Kidney function tests.	A	A	A	A-D
Liver function tests.	A	A	A	A-D
Electrolytes disturbances (Na, K, Ca, Mg, Ph)	A	A	A	A-D
3. Normal and abnormal CSF				
Normal and abnormal CSF	A	A	A	A,B,D

5. Unit methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Laboratory work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)
2. Extra laboratory work

7. Unit assessment methods

viii. Assessment tools:

- a. Written and oral examination
- b. Practical exam
- c. Log book

ii. Time schedule: At the end of the first part

iii. Marks: 150

8. List of references

i. Lectures notes

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

ii. Essential books

- Book of staff member of clinical pathology department
- Fundamentals of Pediatrics; book of staff members of the department.
- Manual of laboratory and diagnostic tests , Publisher: Lippincott Williams & Wilkins; 9th edition (February 4, 2014)

iii. Recommended books

- Nelson Text book of Pediatrics, 2020

iv. Periodicals, Web sites, ... etc

- Pediatrics
- Pediatric clinic of North America
- American Journal of hematology
- Journal of clinical chemistry
- Websites :<http://www.ncbi.nlm.gov/>

v. Others : None

9. Signatures	
Course Coordinator:	Head of the Department:
Date:	Date:

Course 6, Public health and Radiology

Name of department: Pediatrics

Faculty of medicine, Assiut University

Course 6, Unit 1 Public health

I. Unit data

-  **Unit Title:** Public health
-  **Unit code** -PED225D#
-  **Speciality :** Pediatrics
-  **Number of credit points:** 4 credit point, didactic 1. 5 credit point (37.5%) and training 2.5 credit point (62.5%)
-  **Department (s) delivering the unit:** Public health & community medicine Department with Pediatric Department
-  **Coordinator (s):**
Staff members of Public health & community medicine Department in conjunction with Pediatric Department as annually approved by both departments
-  **Date last reviewed:** September 2022
-  **Requirements (prerequisites) if any :** None
-  **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit Aims

The student should acquire the facts of Public health necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe basic principles of:- – Indices used to evaluate MCH centers. – Nutritional requirement for infants and preschool children. – Methods of detection of malnutrition. – Epidemiology : Chain of events, Prevention & control of common Pediatric communicable diseases.	Lectures	Written and oral examination Log book
B. Describe <i>details</i> of:- – Expanded program of immunization. – Growth chart & its significance.		

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of Public health with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars, tutorial)	-Written and oral examination - Log book
B. Participate in conducting public health surveillance related to Pediatrics.		

C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Master of the basic and modern professional skills in the Public health.	-Computer laboratory	-Assessment of practical skills -Log book
B. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatrics	-Computer laboratory	
C. Perform Medical statistics	-Computer laboratory	

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Course (Unit) Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Expanded program of immunization.	B	A,B	A-C	A-D
Growth chart & its significance.	B	A,B	A-C	A-D
Indices used to evaluate MCH centers.	A	A,B	A-C	A-D
Nutritional requirement for infants and preschool children.	A	A,B	A-C	A-D
Methods of detection of malnutrition.	A	A,B	A-C	A-D
Epidemiology : Chain of events, Prevention & control of common Pediatric communicable diseases.	A	A,B	A-C	A-D
Expanded program of immunization.	A	A,B	A-C	A-D
Growth chart & its significance.	A	A,B	A-C	A-D
Indices used to evaluate MCH centers.	A	A,B	A-C	A-D
Nutritional requirement for infants and preschool children.	A	A,B	A-C	A-D
Methods of detection of malnutrition.	A	A,B	A-C	A-D
Epidemiology : Chain of events, Prevention & control of common Pediatric communicable diseases.	A	A,B	A-C	A-D

5. Unit methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Laboratory work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)
2. Extra laboratory work

7. Unit assessment methods

ix. Assessment tools:

- a. Written and oral examination
- b. Assessment of practical skills
- c. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 75

8. List of references

i. Lectures notes

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

ii. Essential books

- Maxcy-Rosenau (2008): Public health and preventive medicine, Prentice- Hall International Inc. 16th edition, 2022. Matthew L. Boulton, Robert B. Wallace,

iii. Recommended books

- Dimensions of Community Health, Boston Burr Ridge Dubuque, short Textbook of preventive and social Medicine.
- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

iv. Periodicals, Web sites, ... etc

- International Journal of epidemiology
- American Journal of Epidemiology
- WWW. CDC and WHO sites

v. others : None

Course 6, Unit 2 Radiology

I. Unit data

-  **Unit Title:** Radiology
-  **Unit code** P PED225D#
-  **Speciality :** Pediatrics
-  **Number of credit points:** 4 credit point, didactic 1. 5 credit point (37.5%) and training 2.5 credit point (62.5%)
-  **Department (s) delivering the unit:** PED225D# Department with Pediatric Department
-  **Coordinator (s):**
Staff members of Radiology Department in conjunction with Pediatric Department as annually approved by both departments
-  **Date last reviewed:** September 2022
-  **Requirements (prerequisites) if any :** None
-  **Requirements from the students to achieve unit ILOs are clarified in the joining log book.**

2. Unit Aims

The student should acquire the facts of Radiology necessary for Pediatrics

3. Unit intended learning outcomes (ILOs)

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe basic principles of:- - General principles of radiological studies - Plain X rays of : Chest & heart Abdomen Bones - Contrast radiology of: GIT Urinary system - CT of: brain Chest Abdomen - Abdominal ultrasonography	Lectures	Written and oral examination Log book

B- Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Correlates the facts of Radiology with clinical reasoning, diagnosis and management of common diseases related to Pediatrics	-Didactic (lectures, seminars,	-Written and oral examination - Log book

	tutorial)	
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C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Master of the basic and modern professional skills - Training on interpretation of plain X rays of : Chest & heart Abdomen Bone - Training on interpretation of Contrast radiology of: GIT Urinary system CT of: brain Chest Abdomen - Training on abdominal ultrasonography	-Computer laboratory	-Assessment of practical skills -Log book
B. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatrics	-Computer laboratory	

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 & oral communication	- Oral Exam - Logbook

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A .	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook - Check list

Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience	- Oral Exam - Logbook

Systems-Based Practice

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

4. Unit contents (topic s/modules/rotation Course (Unit) Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
- General principles of radiological studies	A	A,B	A,B	A-D
- Plain X rays of : Chest & heart Abdomen Bones	A	A,B	A,B	A-D
- Contrast radiology of: GIT Urinary system	A	A,B	A,B	A-D
- CT of: brain Chest Abdomen	A	A,B	A,B	A-D
Training on abdominal ultrasonography	A	A,B	A,B	A-D

5. Unit methods of teaching/learning

1. Didactic (lectures, seminars, tutorial)
2. Laboratory work
3. Observation and supervision
4. Written & oral communication
5. Senior staff experience

6. Unit methods of teaching/learning: for students with poor achievements

1. Extra didactic (lectures, seminars, tutorial)
2. Extra laboratory work

7. Unit assessment methods

x. Assessment tools:

- a. Written and oral examination
- b. Assessment of practical skills
- c. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 75

8. List of references

i. Lectures notes

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

ii. Essential books

- Nelson Textbook of Pediatrics 2020

iii. Recommended books

1. Graniger and Allison: Diagnostic radiology: A textbook of medical imaging, 7th edition: 2020
2. David Sutton: Textbook of radiology and imaging, 7th edition: 2014

iii. Periodicals, Web sites, ... etc

American journal of radiology..

v. **Others :** None

9. Signatures

Course Coordinator	
Unit 1 Coordinator:	Head of the Department:
Date:	Date:
Unit 2 Coordinator:	Head of the Department:
Date:	Date:

Second Part

Name of department: Pediatrics
Faculty of Medicine, Assiut University

Course 7, Pediatric Medicine (Advanced)

1. Course data

- + **Course Title:** Pediatric Medicine.
- + **Course code :** PED225E
- + **Number of credit points:** 134, didactic 24 credit points (17.9%), practical 110 credit points (82.1%).
- + **Department (s) delivering the unit:** Department of Pediatrics, Faculty of medicine, Assiut University, Egypt
- + **Coordinator (s):**
 - Principle coordinator: Prof. Hekma Saad Farghaly
 - Assistant coordinator (s) 1- Safwat Mohamed
2- Ashraf Mohamed
- + **Date last reviewed:** September 2022
- + **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:** 27/11/2022
- + **Admission Requirements (prerequisites) if any :**
 - None
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book.**
- + **This course consists of 11 Units(Modules)**
- + **Unit 1: Pediatric diseases and infections including:-**
Unit (Module) 1.1: General Pediatric Medicine including Nutrition & malnutrition, Growth & development, Children with special

health problems, infectious diseases, metabolic diseases, rheumatic diseases, allergic diseases, immunological diseases, skin diseases, & bone diseases.

Unit (Module) 1.2: Pediatric Emergency medicine.

Unit (Module) 1.3: Pediatric gastroenterology & hepatology.

Unit (Module) 1.4: Pediatric Hematology

Unit (Module) 1.5: Pediatric Nephrology and Urology.

Unit (Module) 1.6: Pediatric Neurology & Psychology.

Unit (Module) 1.7: Pediatric Pulmonology & TB, and Infectious Diseases

Unit (Module) 1.8: Pediatric Cardiology.

Unit (Module) 1.9: Pediatric Endocrinology & Diabetes.

Unit 2 : Patients care and neonatology

Unit (Module) 2.1: Pediatric Intermediate & Intensive care medicine.

Unit (Module) 2.2: Neonatal and Neonatal Intensive care medicine.

Unit Coordinator (s):

Unit	Principle Coordinator	Assistant coordinators
Unit 1, General Pediatrics	Prof. faida mostafa	Prof. Osama Al-Asheer
Unit 2, Emergency Medicine	Dr. Yasser Gamal	Dr. Mahoud abd-Elfattah
Unit 3, Gastroenterology & Hepatology	Prof. Nagla Hassan	Dr Shereen Mansour
Unit 4, Hematology	Prof. Khalid Elsaieh	Dr. Mervet Ameen.
Unit 5, Nephrology & Urology	Dr. Ahlam Badawy	Dr. Asmaa Ahmed
Unit 6, Neurology & Psychology	Prof. Gamal Askar	Dr. Khalaf abd elaal
Unit 7, Pulmonology & TB	Dr. Yasser Farouk	Dr. Mohamed Sayed
Unit 8, Cardiology	Prof. Ghada El-Sedafy	Dr. Amr Kotb
Unit 9, Endocrinology	Prof. Hanaa Abd Ellatif Mohammad	Prof. Kotb Abbas
Unit 10, Intensive care unit	Prof. Zeinab Mohey	Prof. Azza Eltayeb
Unit 11, Neonatology	Dr.Mohamed Gamel	Prof. Nafisa Refaat

2. Course Aims

1. To acquire high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Pediatric Medicine.
2. To provide candidates with general skills related to pediatrics including, writing medical reports, use of information technology in clinical decisions and research.
3. Provide candidates with fundamental knowledge of Pediatric Intensive Care Medicine as regards; dealing with critically ill pediatric patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.

3. Course intended learning outcomes (ILOs)

A. Knowledge and understanding

Unit (Module) (1) General Pediatric Medicine

ILOs	Methods of teaching/learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: <u>Nutrition & malnutrition:</u> - Protein energy malnutrition. - Obesity. - Vitamins deficiency and excess. <u>Growth and development :</u> Delayed physical and / or mental development. <u>Children with special health needs:</u> - Failure to thrive. - Mental retardation. <u>Rheumatic diseases :</u> - Juvenile Rheumatoid Arthritis. - Postinfectious Arthritis. - Systemic Lupus Erythematosus. - Vasculitis Syndromes. - Dermatomyositis and scleroderma. <u>Immunologic diseases:</u> - Cellular immunodeficiency. - Humoral immunodeficiency. - Combined immunodeficiency.	-Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, - Educational prescription -Present a case (true or simulated) in a grand round	-Log book& Portfolio -Oral exam & Written exam

- General principles of BM transplantation. <u>Allergic diseases:</u> - Bronchial asthma. - Atopic dermatitis. - Urticaria & anaphylaxis. <u>Metabolic diseases :</u> - Glycogen storage disease. - Galactosamia and fructosemia. - Aminoacidopathies: phenylalanine, tyrosine, homocysteine and tryptophan. - Lipid storage diseases. - Mucopolysaccharidoses <u>Infectious diseases</u> <u>- Infection control and immunization.</u> - Pyrexia of unknown origin. - Sepsis. - Bacterial infections. - Viral infections including corona virus - Mycotic infections. - Protozoan diseases. - Helminthic diseases. <u>Skin diseases</u> - Ectodermal dysplasia. - Vesiculobollus lesions. - Nutritional dermatosis. <u>Bone & joint diseases:</u> - Athrogryposis multiplex. - Arthritis & oseomyelitis. - Achondroplasia. - Oseopetrosis. - Marfan & osteogenesis imperfect.		
B. Mention the principles of <u>Nutrition & malnutrition:</u> - Nutritional requirements. - Feeding of infants and children.		

Growth and development :

- Growth & development of the newborn, first year, second year, preschool years, early school years, and adolescence.

- Assessment of growth and development.

Children with special health needs:

- Developmental disabilities and chronic illness.

Rheumatic diseases :

- Evaluation of a case with suspected rheumatic disease.

- Principles of therapy of rheumatic diseases

Immunologic diseases:

- Neutropenia and eosinophilia.

- Bone marrow, kidney and liver transplantation.

Allergic diseases:

- Adverse reaction to food & drugs.

Metabolic diseases :

- Lactic acidosis.

- Lipoprotein metabolism.

- Hypoglycemia.

Infectious diseases :

- Infection control and immunization.

- Infection in immunocompromised patient

- Anti-microbial therapy.

- TB infection

Skin diseases

- Hyper- and hypopigmented lesions.

Bone & joint diseases:

- Metabolic bone diseases.

C. State update and evidence based Knowledge of

- **Bronchial asthma**

- **Infection control**

D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to General pediatric medicine

E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the General pediatric medicine.		
F. Mention basics and standards of quality assurance to ensure good clinical practice in the field of in the field of General pediatric medicine.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of General pediatric medicine on the society and how good clinical practice improve these problems.		

Unit (Module) (2)

Emergency Medicine

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: Croup syndromes. Hypercyanotic spells. Acute Heart failure. Systemic hypertension. Convulsions. Acute motor deficit. CNS infections. Acute anemias. Acute bleedings. Envenomation. constipation. Hepatic cell failure. Acute abdomen.	-Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round	-Log book& Portfolio -Oral exam & Written exam
B. Mention the current and updated principles of the following: Dyspnea & Respiratory distress. Convulsions. Food and drug poisoning. Anuria, oliguria, urine retention		
C. State update and evidence based Knowledge of : 1. Convulsions. 2. Bronchiolitis		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Emergencies Medicine.		

E. Mention the basic ethical and medicolegal principles that should be applied in practice and relevant to the Emergencies Medicine.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of in the field of Emergencies Medicine.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pediatric Emergencies on the society and how good clinical practice improve these problems.		

Unit (Module) (3)

Pediatric Gastroenterology and Hepatology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Acute and chronic diarrhea - Malabsorptive disorders - Inflammatory bowel disease - Parasitic infestation - GERD and congenital hypertrophic pyloric stenosis - GIT bleeding - Acute and chronic hepatitis - Fulminant hepatic failure - Cholestasis in infancy period - Liver cirrhosis - Portal hypertension - Ascites and peritonitis - Acute pancreatitis	-Didactic (lectures, seminars, tutorial) - journal club, -Critically appraised topic, Educational prescription -Present a case (true or simulated) in a grand round	-Log book& Portfolio -Oral exam & Written exam
B. Mention the principles of: - DD of common GI symptoms. - Common lesions of the oral cavity - Protein energy malnutrition - Acute and chronic abdominal pain		
C. State update and evidence based Knowledge of - Acute gastroenterology. - Chronic hepatitis		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Gastroenterology & Hepatology		

E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Gastroenterology & Hepatology.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of in the field of Pediatric Gastroenterology & Hepatology.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pediatric Gastroenterology & Hepatology on the society and how good clinical practice improve these problems.		

Unit (Module) (4)

Pediatrics Hematology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1- Hematological malignancies. 2- Solid tumors (Wilms, neuroblastoma & brain tumors). 3- Lymphadenopathy. 4- Splenomegaly. 5- Hematological disorders of the newborn. 6- Gaucher disease.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of 1- Anemia. 2- Neutropenia & leucocytosis. 3- Bleeding and coagulation disorders. 4- Blood transfusions 5- Bone marrow failure.		
C. State update and evidence based Knowledge of Anemia. Coagulation defects		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Hematology		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Hematology		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the		

field of Pediatric Hematology		
G. Mention the ethical and scientific principles of medical research methodology		
H. State the impact of common health problems in the field of Pediatric Hematology on the society and how good clinical practice improve these problems.		

Unit (Module) (5)

Pediatric Nephrology & Urology

	Methods of teaching/ Learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1- Nephrotic syndrome with its types : - Newly diagnose - Steroid dependant . - Steroid resistant 2- Glomerulonephritis with its types. 3-Acute renal failure. 4-Chronic renal failure. 5-Vesicoureteric reflux. 6-Obstructive uropathy. 7- Cong. Anomalies of kidneys and ureters.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of :- Hematuria & proteinuria. Tubular acidosis		
C. State update and evidence based Knowledge of Steroid resistant nephritic syndrome Urinary tract infection		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Nephrology & Urology		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Nephrology & Urology.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatric Nephrology & Urology.		

G. Mention the ethical and scientific principles of medical research methodology		
H. State the impact of common health problems in the field of Pediatric Nephrology & Urology on the society and how good clinical practice improve these problems.		

Unit (Module) (6)
**Pediatric Neurology &
Psychology**

ILOs	Methods of teaching/ Learning	<i>Methods of Evaluation</i>
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. Cerebral Palsy. 2. Motor deficit (hemiplegia, Paraplegia, quadriplegia) 3. Myopathy, myositis, myethinea gravis & ant. Horn cells disease. 4. Peripheral neuropathy. 5. Epilepsy & condition that mimic epilepsy. 6. Neurodegenerative and neurometabolic diseases. 7. Intra cranial tumors. 8. Meningitis. 9. Encephalitis. 10. Neuro cutaneous syndromes. 11. Movements disorders. 12. Vegetative Disorders: Eating & Elimination disorders. 13. Habit & Tic disorders 14. Eating Disorders: Anorexia nervosa & Bulimia 15. Pervasive developmental disorders: Autistic disorders. 16. Attention deficit hyperactivity disorders.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of 1. Headache. 2. Enuresis. 3. Coma.		

C. State update and evidence based Knowledge of Cerebral Palsy. Epilepsy.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Neurology		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Neurology.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatric Neurology.		
G. Mention the ethical and scientific principles of medical research methodology		
H. State the impact of common health problems in the field of Pediatric Neurology on the society and how good clinical practice improve these problems.		

Unit(Module) (7)
Pediatric Pulmonology & TB, and
infectious diseases

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: - Croup, epiglottitis, laryngitis, and tracheitis. - Wheezing, bronchitis and bronchiolitis. - Emphysema and over inflation. - Pneumonia (viral or bacterial). - Infectious diseases (bacterial , viral including corona virus). - Bronchiectasis, pulmonary abscess. - Interstitial lung diseases. - Pulmonary hemosiderosis. - Atelectasis. - Pulmonary tumors - pulmonary edema. - Pleurisy, pleural effusions and empyema. -	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of - Chronic or recurrent respiratory symptoms. -Aspiration syndromes. - Inherited disorders of surfactant metabolism.		
C. State update and evidence based Knowledge of - Bronchiolitis		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Pulmonology & TB		
E. Mention the basic ethical and medicolegal		

principles that should be applied in practice and are relevant to the Pediatric Pulmonology & TB.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatric Pulmonology & TB.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pediatric Pulmonology & TB on the society and how good clinical practice improve these problems.		

Unit (Module) (8)

Pediatric Cardiology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. Congenital heart disease with left to right shunt. 2. Acyanotic congenital heart disease. 3. Cyanotic heart disease with increased pulmonary blood flow. 4. Cyanotic heart disease with restricted pulmonary blood flow. 5. Rheumatic fever. 6. Chronic valvular rheumatic heart disease. 7. Myocarditis & Cardiomyopathy. 8. Heart failure. 9. Infective endocarditis. 10. Pericardial effusion. 11. Systemic & pulmonary hypertension.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of 1. Dyspnea & Respiratory distress 2. Cyanosis 3. Pediatric cardiac dysrhythmias. 4. Care of children with cardiac invasive operations in the perioperative period.		
C. State update and evidence based Knowledge of Infective endocarditis		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Cardiology		
E. Mention the basic ethical and medicolegal		

principles that should be applied in practice and are relevant to the Pediatric Cardiology		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatric Cardiology		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pediatric Cardiology on the society and how good clinical practice improve these problems.		

Unit (Module) (9)
Pediatric Endocrinology& Diabetes

S	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. Obesity. 2. hypo- and hyperpituitrism. 3. Hypo- and hyperthyroidism. 4. Hypo- and hyperadrenocorticism.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of 1. Short stature. 2. Polyurea and polydepsia. 3. Hypo- and hyperglycemia. 4. Hypo- and hypercalcemia. 5. Delayed and precocious puberty		
C. State update and evidence based Knowledge of - Obesity. - Short stature.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Endocrinology		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Endocrinology.		
F. Mention the basics basics and standards of quality		

assurance to ensure good clinical practice in the field of Pediatric Endocrinology.		
G. Mention the ethical and scientific principles of medical research methodology		
H. State the impact of common health problems in the field of Pediatric Endocrinology on the society and how good clinical practice improve these problems.		

Unit(Module) (10)
Pediatric Intensive Care Unit

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. Respiratory failure. 2. Status epilepticus. 3. Status asthmaticus. 4. Encephalopathy. 5. Cardiogenic shock. 6. Septic shock. 7. C.N.S strokes 8. Hypertensive encephalopathy. 9- Increase intracranial pressure. 10-DKA 11- Indications of ventilation.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of 1. Hematemesis. 2. Cardiac dysrhythmia. 3. Metabolic and acid base disorders.		
C. State update and evidence based Knowledge of 1. Respiratory failure 2. Ventilation 3. Status epilepticus.		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Intensive Care		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Pediatric Intensive Care.		

F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatric Intensive Care.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Pediatric Intensive Care on the society and how good clinical practice improve these problems.		

Unit (Module) (11)
Neonatology & NICU

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: 1. High risk infants (multiple gestations, prematurity, IUGR, post-term, large for gestational age).. 2. Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, air leak syndrome, diaphragmatic hernia, TOF, BP dysplasia). 3. Jaundice and kernicterus. 4. NEC. 5. Neonatal sepsis IU infections. 6. HIE and neonatal seizures.		
B. Mention the principles of 1. History in neonatal pediatrics. 2. Physical examination. 3. Routine delivery room care. 4. Nursery care. 7. Infant transport. 8. Anemia, hemolytic disease of the newborn, hemorrhage in the newborn, polycythemia, thrombocytopenia). 9. Hypoglycemia, IDM.		
C. State update and evidence based Knowledge of - Prematurity		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Neonatology		
E. Mention the basic ethical and medicolegal		

principles that should be applied in practice and are relevant to the Neonatology.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Neonatology.		
G. Mention the ethical and scientific principles of medical research methodology.		
H. State the impact of common health problems in the field of Neonatology on the society and how good clinical practice improve these problems.		

B-Intellectual outcomes of the whole Course

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Pediatrics.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Pediatrics.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Pediatrics.		
D-Formulate management plans and alternative decisions in different situations in the field of the Pediatrics.		

C-Practical skills (Patient Care)

Unit(Module)(1.1)

Pediatric General Medicine

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation	- Log book - Objective structure clinical examination (OSCE) - One MCQ examination at the second half of the second year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> 1. Routine appropriate Lab investigations related to conditions mentioned in A.A 2. Blood, urine, CSF, throat, Stool , sputum culture. 3. Special serological tests of infectious diseases. 4. Imaging studies: Bone scans or MRI, Ct brain or abdomen. 5. Ocular examination 7. serum Ca, P, alkaline phosphatase.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> 1. Routine appropriate Lab investigations related to conditions mentioned in A.A 2. Blood, urine, CSF, throat, Stool , sputum culture. 3. Special serological tests of infectious diseases.	-Clinical round with senior staff -Observation -Post graduate	

4. Imaging studies: Bone scans or MRI, Ct brain or abdomen. 5. Ocular examination.	teaching -Hand on workshops	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures 1. Swaps 2. Stomach lavage - Immunoglobulins, plasma transfusion, Cold path, Oil path, - Physiotherapy.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : - proper treatment for conditions mentioned in A.A	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
F. Carry out patient management plans for common conditions related to General Pediatric Medicine 1. Treatment of juvenile rheumatoid arthritis & SLE. 2. Metabolic acidosis 3. Pyrexia of unknown origin & pyrexia without a focus.	- Clinical rounds - Senior staff experience	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to General Pediatric Medicine.		
H. Provide health care services aimed at preventing health problems related to General Pediatric Medicine like: 1. Joint stiffness. 2. Chronic infections 3. Complications of metabolic diseases		

I. Provide patient-focused care in common conditions related to General Pediatric Medicine., while working with health care professionals, including those from other disciplines like: • Pain control.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.2)

Pediatric Emergencies

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation	- Log book - Objective structure clinical examination (OSCE) - One MCQ examination at 2nd half of 2nd year
B. Order the following non invasive and invasive diagnostic procedures Plain X-rays (chest and heart, skull, abdomen). X-rays with contrast (barium swallow, barium meal, intravenous urography) CT and MRI (brain, chest, abdomen) Ultrasonography (chest, abdomen) Echocardiography. Lab tests: CBC, acute phase reactants, Blood glucose, blood urea nitrogen, serum electrolytes. EEG. Bone marrow examination.	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures Plain X-rays (chest and heart, skull, abdomen). X-rays with contrast (barium swallow, barium meal, intravenous urography) CT brain	-Clinical round with senior staff -Observation -Post graduate	

Lab tests: CBC, acute phase reactants, Blood glucose, blood urea nitrogen, serum electrolytes. EEG. Bone marrow examination.	teaching -Hand on workshops	
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures ECG CSF examination. Blood gas analysis. Gastric lavage. Cardiopulmonary resuscitation. O2 inhalation. Nasogastric intubation. Rectal intubation. Urinary catheterization.	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures Intercostal intubation. Tracheostomy. Nasal packing. Bronchoscope.		
F- Carry out patient management plans for the following problems Respiratory distress. convulsions. CNS infections. Acute anemia. Bleeding tendencies. Envenomations. Food and drug poisoning.		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Emergencies		

H. Provide health care services aimed at preventing health problems related to Pediatric emergencies Bronchial asthma. Convulsions. Acute hemolytic crisis		
I. Provide patient-focused care in common conditions related to Pediatrics, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.3)

Pediatric Gastroenterology and Hepatology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Outpatient -Inpatient -Case presentation -Direct observation	- Log book - Objective structure clinical examination (OSCE) - One MCQ examination at 2nd half of 2nd year
B. Order the following non invasive and invasive diagnostic procedures Lab investigations as Na, K, Ca, liver and Kid function tests Blood gases Erect abdominal x ray Abdominal ultrasonography Barium swallow, barium meal, barium full through and enema Upper and lower endoscopy Paracentesis	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures Lab investigations as Na, K, Ca, liver and Kid function tests Blood gases Erect abdominal x ray	-Clinical round with senior staff -Observation - Post graduate teaching	

Barium swallow, barium meal, barium full through and enema	-Hand on workshops	
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures peritoneal tap nasogastric and rectal tube paracentesis	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures. nasogastric tube insertion peritoneal tap singestaken tube	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F- Carry out patient management plans for the following problems Chronic diarrhea and malabsorption. Compensated and decompensated Liver cirrhosis. Upper and lower GIT bleeding		
G- Use information technology to support patient care decisions and patient education in common clinical situations related Pediatric Gastroentrology & Hepatology .		
H. Provide health care services aimed at preventing health problems related to Pediatric gastroenterology and hepatology like: Infectious diarrheal diseases Infectious hepatitis A, B, C, & TB Parasitic infestation		
I. Provide patient-focused care in common conditions related to Pediatric gastroenterology		

and hepatology while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.4)

Pediatrics Hematology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in third year
B- Order the following non invasive and invasive diagnostic procedures 1- Laboratory tests: CBC, Iron status, coagulation profile, platelets function 2- B. M. examination. 3- Investigations of hemolysis: hemoglobin electrophoresis, sickling, osmotic fragility	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures 1- Laboratory tests: CBC, Iron status, coagulation profile, platelets function 2- B. M. examination. 3- Investigations of hemolysis: hemoglobin electrophoresis, sickling, osmotic fragility	-Clinical round with senior staff Observation - Post graduate teaching -Hand on workshops	

D- Perform the following non invasive and invasive diagnostic and therapeutic procedures Blood sampling Bleeding time Coagulation time - Drug therapy. - Blood transfusion. - Blood product transfusion - Desferal infusion.	-Clinical round with senior staff Observation - Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures. - Drug therapy. - Blood transfusion. - Blood product transfusion - Desferal infusion.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F- Carry patient management plans for the following problems - Iron deficiency anemia. - Iron overload in thalassemia . - Hemophilia. - ITP. - Hematological emergencies.		
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Hematology		
A. Provide health care services aimed at preventing health problems related to Pediatric Hematology like: - Iron deficiency anemia. - bleeding disorders.		
B. Provide patient-focused care in common conditions related to Pediatric Hematology,		

while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		
C. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, and maintaining medical records)		

Unit (Module) (1.5)
Pediatric Nephrology & Urology

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in the third year
E. Order the following non invasive and invasive diagnostic procedures - Proper lab investigations related to conditions mentioned in A -Abdominal ultrasonography. -Phlebography. -Voiding cystourethrogram. -Intravenous urography. -C.T abdomen. -MR urography. -Isotope scan of both kidneys. -MRI spine	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
F. Interpret the following non invasive and invasive diagnostic procedures -Abdominal ultrasonography. -Voiding cystourethrogram. -Intravenous urography.	-Clinical round with senior staff -Observation - Post graduate teaching	

-C.T abdomen.	-Hand on workshops	
G. Perform the following non invasive and invasive diagnostic and therapeutic procedures -Paracentesis. -Peritoneal dialysis. -Hemodialysis. -Peritoneal tap	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops	
H. Prescribe the following non invasive and invasive therapeutic procedures. -Peritoneal dialysis. -Hemodialysis. -Peritoneal tap	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops	
I. Carry out patient management plans for the following problems -Complications of nephrotic syndrome(peritonitis, deep venous thrombosis, infections). -Complications of acute renal failure (pulmonary edema, hyperkalemia, status epilepticus, heart failure, hypertensive encephalopathy, etc...). -Acute and chronic glomerulonephritis. -Complication of vesicoureteric reflux.		
J. Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Nephrology & Urology.		
H. Provide health care services aimed at preventing health problems related Pediatric Nephrology & Urology. -Parenteral infectious as hepatitis B, C		

- Urinary tract infection -Control diet for renal stone passer. -Control of diabetes and hypertension to avoid nephropathy.		
I. Provide patient-focused care in common conditions related to Pediatric Nephrology & Urology, while working with health care professionals, including those from other disciplines like: Obstructive uropathy. Vesicoureteric reflux.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.6)
**Pediatric Neurology &
Psychology**

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in 3rd year
B- Order the following non invasive and invasive diagnostic procedures . Proper lab investigations related to conditions mentioned in A .Skull X-rays. . CT brain. . MRI brain. .Lumber puncture .Cranial Sonography .NCV&EMG	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures .Skull X-rays. . CT brain. . CSF examination report	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on	

	workshops	
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures . Lumber puncture . Control of ongoing fits	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures: .Proper medical treatment of conditions mentioned in A	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F- Cary out patient management plans for the following problems .Epilepsy. .febrile convulsion. .Cerebral palsy. .Coma	- Clinical round with senior staff - Perform under supervision of senior staff	
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Neurology.		
H. Provide health care services aimed at preventing health problems related to Pediatric Neurology like: .Febrile convulsion.		
I. Provide patient-focused care in common conditions related to Pediatric nephrology , while working with health care professionals, including those from other disciplines like:		

Conditions mentioned in A.A		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.7)
**Pediatric Pulmonology & TB and
infectious diseases**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in third year
B- Order the following non invasive and invasive diagnostic procedures - Chest X-rays, chest ultrasonography & CT. - Diagnostic thoracocentesis. - Lab tests: CBC, acute phase reactants, blood culture, gastric lavage culture. - Tuberculin test. - Pulmonary function test.	-Clinical round with senior staff - Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures - Chest X-rays, chest ultrasonography & CT. - Diagnostic thoracocentesis. - Lab tests: CBC, acute phase reactants, blood culture.	-Clinical round with senior staff - Observation -Post graduate	

- Tuberculin test. - Blood gases - Pulmonary function tests.	teaching -Hand on workshops	
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures - Tuberculin test. -Gastric lavage for culture - Proper drug therapy for cases mentioned in A. - Thoracocentesis.	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures. - Proper drug therapy for cases mentioned in A. - Thoracocentesis. - O2 therapy. - Nebulizer usage.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F- Carry out patient management plans for the following problems - Pulmonary TB - Bronchopeumonia - Bronchiolitis		
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Pulmonology & TB.		
H. Provide health care services aimed at preventing health problems related to Pediatric Pulmonology & TB like: - Prevention of pneumonia, bronchial		

asthma, and other respiratory diseases.		
I. Provide patient-focused care in common conditions related to R Pediatric Pulmonology & TB, while working with health care professionals, including those from other disciplines like: - Bronchial asthma - Tuberculosis. - Apparent life threatening event. - Foreign bodies of the airway.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.8)

Pediatric Cardiology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in the third year
B- Order the following non invasive and invasive diagnostic procedures 1. Chest X-rays. 2. Echocardiography. 3. Diagnostic Pericardiocentesis. 4. Lab tests: CBC, acute phase reactants, evidence of streptococcal infection, Blood culture, cardiac enzymes.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures 1. Chest X-rays. 2. Echocardiography report. 3. Lab tests: CBC, acute phase reactants, evidence of streptococcal infection, Blood culture, cardiac enzymes. 4. ECG	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	

D- Perform the following non invasive and invasive diagnostic and therapeutic procedures ECG Digitalization. Anti-dysrhythmia drugs and maneuvers.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E- Prescribe the following non invasive and invasive therapeutic procedures. Therapeutic pericardiocentesis Digitalization. Anti-dysrhythmia drugs and maneuvers.	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	
F- Cary out patient management plans for the following problems 1 .Treatment of rheumatic fever. 2 Treatment of infective endocarditis. 3. Treatment of heart failure. 4.Treatment of systemic hypertension.	- Clinical round with senior staff - Perform under supervision of senior staff	
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Cardiology.		
H. Provide health care services aimed at preventing health problems related to Pediatric Cardiology like: 1. Prevention of rheumatic fever. 2 .Prevention of infective endocarditis.		

I. Provide patient-focused care in common conditions related to Pediatric Cardiology, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (1.9)
**Pediatric Endocrinology &
Diabetes**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at 2nd half of 2nd year and one in third year
B- Order the following non invasive and invasive diagnostic procedures 1. Lab tests: Blood glucose level, serum calcium, sodium, potassium. 2. Bone aging. 3. Fundus examination. 4. Radiology: CT and MRI (brain, abdomen). 5. Hormonal assay: growth hormone, TSH, T3, T4, Insulin, cortisol, 6. Chromosomal study.	-Clinical round with senior staff - Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures 1. Lab tests: Blood glucose level, serum calcium, sodium, potassium. 2. Bone aging. 3. Fundus examination.	-Clinical round with senior staff - Observation -Post	

4. Radiology: CT and MRI (brain, abdomen). 5. Hormonal assay: growth hormone, TSH, T3, T4, Insulin, cortisol, 6. Chromosomal study.	graduate teaching -Hand on workshops	
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures Glucose level in urine and blood. - Fluid and electrolyte correction. - Hormonal replacement	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops	
E- Prescribe the following non invasive and invasive therapeutic procedures. - Fluid and electrolyte correction. - Hormonal replacement	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F- Carry out patient management plans for the following problems - Diabetes mellitus - Diabetes Insipidus - Hypopituitarism.		
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Endocrinology.		
H. Provide health care services aimed at preventing health problems related to Pediatric Endocrinology like: - Hypoglycemia.		

- Hyperglycemia.		
I. Provide patient-focused care in common conditions related to Pediatric Endocrinology, while working with health care professionals, including those from other disciplines like: Diabetes mellitus .		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

Unit (Module) (2.1)
Pediatric Intensive Care Unit

ILOs	Methods of teaching/ learning	Methods of Evaluation
A- Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Bedside clinical teaching Journal Club Interviews	Written exam. Oral exam. Clinical case taking exam. Professional evaluation sheet. Post workshop questionnaire
B- Order the following non invasive and invasive diagnostic procedures 1.Chest X-rays. 2.Arterial blood gases. 3.Echocardiography. 4.Diagnostic Pericardiocentesis. 5.Lab tests: CBC, acute phase reactants, evidence of streptococcal infection, Blood culture, cardiac enzymes, CSF, C.T brain, blood glucose, renal function tests, urine analysis, serum electrolytes and coagulation profile.	-Clinical round with senior staff - Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C- Interpret the following non invasive and invasive diagnostic procedures - Chest X-rays. - Arterial blood gases. - Echocardiography. - Lab tests: CBC, acute phase reactants, evidence		

of streptococcal infection, Blood culture, cardiac enzymes, CSF, C.T brain, blood glucose, renal function tests, urine analysis, serum electrolytes and coagulation profile.		
D- Perform the following non invasive and invasive diagnostic and therapeutic procedures - Blood pressure measurement at different sites. - ECG - Measuring oxygen saturation. - Thoraco/ abdomino centesis and intercostal tube insertion. - Obtain consent from the family. - Lumbar puncture. - BLS. - ALS. - DC. - Arterial puncture and arterial line placement. - Veni puncture and intravenous catheter placement. - Bag mask ventilation. - Endotracheal intubation - Placement of intraosseous line - Anti-dysrhythmia drugs and maneuvers. - Anti shock measures. - Partial exchange transfusion. - Chest physiotherapy.		
E- Prescribe the following non invasive and invasive therapeutic procedures. - BLS. - ALS. - DC. - Arterial puncture and arterial line placement. - Veni puncture and intravenous catheter placement.	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list

- Bag mask ventilation. - Endotracheal intubation - Placement of intraosseous line - Anti-dysrhythmia drugs and maneuvers. - Anti shock measures. - Partial exchange transfusion. - Chest physiotherapy.		
F- Carry out patient management plans for the following problems - Apnea - Cardiorespiratory arrest - Status epilepticus - Shock		
G- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatric Intensive Care.		
H. Provide health care services aimed at preventing health problems related to Pediatric Intensive Care like: - Infectious diseases.		
I. Provide patient-focused care in common conditions related to Pediatric Intensive Care, while working with health care professionals, including those from other disciplines like:- convulsions. - Acute flaccid paralysis. - Aspiration syndrome		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, and maintaining medical records)		

Unit (Module) (2.2)

Neonatology and NICU

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Lectures Bedside clinical teaching Journal Club Interviews	Written exam. Oral exam. Clinical case taking exam. Professional evaluation sheet. Post workshop questionnaire
B. Order the following non invasive and invasive diagnostic procedures - Laboratory: ABG, CBC, liver function tests, kidney, CSF, cultures (blood, urine, CSF), drug serum level. - Imaging: X-rays (chest, abdomen, bone, ultrasonography (abdominal, cranial), dye studies, echocardiography, CT, MRI. - EEG. - Echocardiography report. - Pluse oximetry, transcranial ultrasonography, lumbar puncture.		
C. Interpret the following non invasive and invasive diagnostic procedures - Laboratory: ABG, CBC, liver function tests, kidney, CSF, cultures (blood, urine, CSF), drug serum level. - Imaging: X-rays (chest, abdomen, bone, ultrasonography (abdominal, cranial), dye studies, echocardiography, CT, MRI.		

- EEG. - Echocardiography report. - Pulse oximetry, transcranial ultrasonography, lumbar puncture.		
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures - Resuscitation, - Exchange transfusion, - Pulse oximetry - Lumbar puncture.		
E. Prescribe the following non invasive and invasive therapeutic procedures : - Parental infusion and alimentation		
F. Carry out patient management plans for common conditions related to Neonatology.		
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neonatology		
H. Provide health care services aimed at preventing health problems related to Neonatology like: IDM, RDS, HIE, neonatal infection, Prematurity.		
I. Provide patient-focused care in common conditions related to Neonatology while working with health care professionals, including those from other disciplines like: - Preterm, IUGR.		
J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)		

D- General Skills

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(share in audit and risk management activities and use logbook).	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio - Simulation
B. Appraises evidence from scientific studies(journal club) about Pediatrics and its disorders		
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	-Clinical rounds -Senior staff experience	

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Observation & supervision -Didactic	-Simulation -Record review (report)
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		

H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of:- - Complicated pediatric diseases.		
J. Present a case in • Common problems of pediatrics .		
K. Write a report - Case sheet taking. - Follow up visits report of children. - Referral sheets - Death report	-Senior staff experience	
L. <u>Council patients and families about</u> • Unit 1.1 1. Importance of breast feeding 2. Successful weaning practice 3. Expected systemic manifestations of rheumatic disorders. 4. Possible side effects of treatments. 5. Lifestyle aspects management of chronic arthritis, some metabolic diseases • Unit 1.2 Prevention of acute hemolytic crisis. Care of convulsing child. Lifestyle aspects management of asthmatic child. Lifestyle aspects management of hemophilic child. • Unit1.3 Prevention of diarrhea and dehydration Prevention of hepatitis Warning signs of dehydration Value of vaccination against some diarrheal diseases and hepatitis A & B. Proper preparation of formula milk and ORS • Unit 1.4	-Perform under supervision of senior staff	

-Prevention of urinary tract infection. -Importance of follow up of the patients. -Indications of admission to the nephrology unit. -Value of vaccination against hepatitis B. -Importance of regular hemodialysis at accurate time. • Unit 1.5 .Febrile convulsions. . Home management of convulsing child . Dealing with CP as regard feeding exercises . Breath holding spells • Unit 1.6 - Iron deficiency anemia. - Thalassemia. - Hemophilia. • Unit 1.7 1. Prevention of infective endocarditis. 2. Prevention of rheumatic fever. 3. Lifestyle aspects management of heart failure and systemic hypertension. 4. Indication & timing of intervention for common congenital and acquired cardiac defects (ASD, VSD, AVC defect, TF, valvular diseases). • Unit 1.8 - Prevention of tuberculosis - Prevention of exposure to allergic inhalant substances. • Unit 1.9 - Life style of diabetic patients. - Nutrition of diabetic patient • Unit 2.1 - Physiotherapy of comatosed child • Unit 2.2 1. Prevention of prematurity, RDS, IDM, and HIE.. 2. Care of preterm infants.		
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Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	Observation & supervision -Didactic	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems including good administrative and time management.	-Observation & supervision -Didactic	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

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

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skill C	General Skills D
Unit (Module) 1.1, General Pediatrics				
Nutrition & malnutrition				
Protein energy malnutrition	A,D-H	A-D	A-J	A-R
Obesity	A, D-H	A-D	A-J	A-K,M-R
Vitamins deficiency and excess	A, D-H	A-D	A-J	A-R
Nutritional requirements	B, D-H	A-D	A	-
Feeding of infants and children	B, D-H	A-D	A	A-R
Growth and development				
Growth & development of the newborn, first year, second year, preschool years, early school years, and adolescence	B, D-H	A-D	A-C,H-J	-
Assessment of growth and development	B, D-H	A-D	A-C,H-J	A-K,M-R
Delayed physical and / or mental development	A, D-H	A-D	A-C,HJ	A-R
Children with special health needs				
Failure to thrive	A, D-H	A-D	A-J	A-R
Mental retardation	A, D-H	A-D	A-J	A-R
Developmental disabilities and chronic illness	B, D-H	A-D	A-J	A-R

Rheumatic diseases				
Suspected Rheumatic Disease	B, D-H	A-D	A-J	A-R
Juvenile Rheumatoid Arthritis	A, D-H	A-D	A-J	A-R
Postinfectious Arthritis	A, D-H	A-D	A-J	A-R
Systemic Lupus Erythematosus	A, D-H	A-D	A-J	A-R
Vasculitis syndromes	A, D-H	A-D	A-J	A-R
Dermatomyositis and scleroderma	A, D-H	A-D	A-J	A-R
Immunologic diseases				
Cellular immunodeficiency	A, D-H	A-D	A-J	A-R
Humoral immunodeficiency	A, D-H	A-D	A-J	A-R
Combined immunodeficiency	A, D-H	A-D	A-J	A-R
Neutropenia and esinophilia	B, D-H	A-D	A-J	A-K,M-R
BM, Kidney and liver transplantation	B, D-H	A-D	A-E,G-J	A-R
Allergic diseases				
Bronchial asthma	A,C-H	A-D	A-J	A-R
Atopic dermatitis	A, D-H	A-D	A-J	A-R
Urtecaria, anaphylaxis	A, D-H	A-D	A-J	A-R
Adverse reaction to food & drugs	B, D-H	A-D	A-E,G-J	A-R
Metabolic diseases				
Glycogen storage disease	A, D-H	A-D	A-J	A-R
Galactosamia and fructosemia	A, D-H	A-D	A-J	A-R
Aminoacidopathies phenyleketonuria, tyrosinemia, cysteine and tryptophan	A, D-H	A-D	A-J	A-R
Lipid storage diseases	A, D-H	A-D	A-J	A-R
Lactic acidosis	B, D-H	A-D	A-J	A-R
Lipoprotein metabolism	B, D-H	A-D	A-J	A-R
Mucopolysaccharidoses	A, D-H	A-D	A-J	A-R
Infectious diseases				
Infection control and immunization	B-H	A-D	G-J	A-K;M-R
Pyrexia of unknown origin	A, D-H	A-D	A-J	A-R
Sepsis	A, D-H	A-D	A-J	A-R

Inf. in immunocompromised patient	B, D-H	A-D	A-J	A-R
Anti-microbial therapy	B-H	A-D	E-G	
Bacterial infections	A,C-H	A-D	A-J	A-R
Viral infections	A,C-H	A-D	A-J	A-R
Common mycotic infections	A,C-H	A-D	A-J	A-R
Protozoan diseases	A,C-H	A-D	A-J	A-R
Mycoplasma infection	A,C-H	A-D	A-J	A-R
TB infection	B-H	A-D	A-J	A-R
Skin diseases				
Ectodermal dysplasia	A, D-H	A-D	A-J	A-R
Hyper- and hypopigmented lesions	B, D-H	A-D	A-J	A-R
Vesiculobollus lesions	A, D-H	A-D	A-J	A-R
Nutritional dermatosis	A, D-H	A-D	A-J	A-R
Bone diseases				
Metabolic bone diseases	B, D-H	A-D	A-J	A-R
Athrogryposis multiplex	A, D-H	A-D	A-J	A-R
Arthritis & oseomyelitis	A, D-H	A-D	A-J	A-R
Achondroplasia	A, D-H	A-D	A-J	A-R
Oseopetrosis	A, D-H	A-D	A-J	A-R
Marfan & osteogenesis imperfect	A, D-H		A-J	A-R
Unit (Module) 1.2, Pediatric Emergency medicine.				
Dyspnea & Respiratory distress	A-H	A-D	A-J	A-R
Foreign body inhalation	A,C-H	A-D	A-J	A-R
Croup syndromes	A,D-H	A-D	A-J	A-R
Hypercyanotic spells	A,D-H	A-D	A-J	A-R
Acute Heart failure	A,D-H	A-D	A-J	A-R
Systemic hypertension	A,D-H	A-D	A-J	A-R
Convulsions	A-H	A-D	A-J	A-R
CNS infections	A,D-H	A-D	A-J	A-R
Acute anemias	A,D-H	A-D	A-J	A-R
Acute bleedings	A,D-H	A-D	A-J	A-R
Envenomation	A,D-H	A-D	A-J	A-R

Food and drug poisoning	B-H	A-D	A-J	A-R
Anuria, oliguria, urine retention	B-H	A-D	A-J	A-R
Absolute constipation	A,D-H	A-D	A-J	A-R
Hepatic cell failure	A,D-H	A-D	A-J	A-R
Acute abdomen	A,D-H	A-D	A-J	A-R
Unit (Module)1.3, Pediatric Gastroenterology &Hepatology.				
Common lesions of the oral cavity	B-H	A-D	A-E,G-J	A-K,L-M
Acute and chronic diarrhea	A-H	A-D	A-J	A-R
Malabsorptive disorders	A-H	A-D	A-J	A-R
Inflammatory bowel disease	A-H	A-D	A-J	A-R
DD of common GIT symptoms	A-H	A-D	A-J	A-K,M-R
Parasitic infestation	A-H	A-D	A-J	A-R
GERD and congenital hypertrophic pyloric stenosis	A,D-H	A-D	A-E,G-J	A-R
GIT bleeding	A,D-H	A-D	A-J	A-R
Acute and chronic hepatitis		A-D	A-J	A-R
Fulminant hepatic failure	A,D-H	A-D	A-J	A-R
Cholestasis in infancy period	A,D-H	A-D	A-J	A-R
Liver cirrhosis	A,D-H	A-D	A-J	A-K,M-R
Acute pancreatitis	A,C-H	A-D	A-J	A-K,M-R
Portal hypertension	A,D-H	A-D	A-J	A-K,M-R
Ascites and peritonitis	A,C-H	A-D	A-J	A-K,M-R
Unit (Module) 1.4, Pediatric Hematology.				
Anemia	B-H	A-D	A-J	A-R
Neutropenia & leucocytosis	B,C-H	A-D	A-E,G-J	A-K,M-R
Bleeding and coagulation disorders	B-H	A-D	A-J	A-R
Hematological malignancies	A-H	A-D	A-J	A-R
Solid tumors	A-H	A-D	A-J	A-K,M-R
Lymphadenopathy.	A-H	A-D	A-J	A-K,M-R
Splenomegaly.	A-H	A-D	A-J	A-K,M-R
Gaucher disease.	A,D-H	A-D	A-J	A-K,M-R
Blood transfusions	B,D-H	A-D	E	A
Bone marrow failure.	B,D-H	A-D	A-J	A-R

Unit (Module) 1.5, Pediatric Nephrology and Urology				
Nephrotic syndrome with its types	A,C-H	A-D	A-J	A-R
Acute renal failure	A, D-H	A-D	A-J	A-R
Chronic renal failure	A, D-H	A-D	A-J	A-R
Vesicoureteric reflux	A,D-H	A-D	A-J	A-R
Hematuria & proteinurea	B, D-H	A-D	A-J	A-K,M-R
Obstructive uropathy	A,C-H	A-D	A-J	A-R
Urinary tract infections	C-H	A-D	A-J	A-R
Congenital anomalies of kidneys and urogenital system		A-D	A-E,G-J	A-K,M-R
Unit (Module) 1.6, Pediatric Neurology & Psychology.				
Cerebral Palsy	A,C-H	A-D	A-J	A-R
Motor deficit (hemiplegia, paraplegia, quadriplegia)	A, D-H	A-D	A-J	A-K,M-R
Myopathy, myositis, myetheneas gravis and AHC disease	A, D-H	A-D	A-J	A-K,M-R
Peripheral neuropathy	A, D-H	A-D	A-J	A-K,M-R
Epilepsy & condition that mimic epilepsy	A-H	A-D	A-J	A-R
Headache	B, D-H	A-D	A-J	A-K,M-R
Enuresis	B, D-H	A-D	A-J	A-K,M-R
Neurodegenerative and neurometabolic diseases	A, D-H	A-D	A-J	A-R
Intra cranial tumors	A, D-H	A-D	A-E,G-J	A-K,M-R
Neuro cutaneous syndromes	A, D-H	A-D	A-E,G-J	A-K,M-R
Ataxia	A, D-H	A-D	A-J	A-K,M-R
Vegetative Disorders: Eating & Elimination disorders	A,D-H	A-D	A,G-J	A-K
Habit & Tic disorders	A,D-H	A-D	A,G-J	A-K
Eating Disorders: Anorexia nervosa, Bulimia & Bing Eating	A,D-H	A-D	A,G-J	A-K
Pervasive developmental disorders: Autistic disorders	A,D-H	A-D	A,G-J	A-K
Attention deficit hyperactivity	A,D-H	A-D	A,G-J	A-K,M-R

disorders				
Unit (Module) 1.7, Pediatric Pulmonology & TB. and infectious diseases				
Chronic or recurrent respiratory symptoms.	B,D-H	A-D	A-J	A,B,E
Croup, epiglottitis, laryngitis, and tracheitis.	A,D-H	A-D	A-J	A-K,M-R
Wheezing, bronchitis and bronchiolitis.	A,C-H	A-D	A-J	A-R
Emphysema and over inflation.	A,B,D-H	A-D	A-J	A-K,M-R
Aspiration syndromes.	B,D-H	A-D	A-J	A-K,M-R
Pneumonia (viral or bacterial).	A,D-H	A-D	A-J	A-R
-Infectious diseases (bacterial- viral including corona virus).	A,D-H	A-D	A-J	A-R
Bronchiectasis, pulmonary abscess.	A,B,D-H	A-D	A-J	A-K,M-R
Interstitial lung diseases.	A,B,D-H	A-D	A-J	A-K,M-R
Inherited disorders of surfactant metabolism.	B,D-H	A-D	A-J	A,B,E
Pulmonary hemosiderosis.	A,B,D-H	A-D	A-J	A-K,M-R
Atelectasis.	A,B,D-H	A-D	A-J	A-K,M-R
Pleurisy, pleural effusions and empyema.	A,D-H	A-D	A-J	A-K,M-R
Unit (Module) 1.8, Pediatric Cardiology.				
Cyanosis	B	A-D	A-J	A-K,M-R
Congenital heart disease with left to right shunt.	A-H	A-D	A-J	A-R
Acyanotic congenital heart disease.	A-H	A-D	A-J	A-R
Cyanotic heart disease with increased pulmonary blood flow.	A-H	A-D	A-J	A-R
Cyanotic heart disease with restricted pulmonary blood flow.	A-H	A-D	A-J	A-R
Pediatric cardiac dysrhythmias.	B,D-H	A-D	A-J	A-K,M-R
Rheumatic fever.	A-H	A-D	A-J	A-R
Chronic valvular rheumatic heart	A-H	A-D	A-J	A-R

disease.				
Cardiomyopathy & myocarditis.	A	A-D	A-J	A-K,M-R
Heart failure.	A	A-D	A-J	A-R
Infective endocarditis.	A-H	A-D	A-J	A-R
Pericardial effusion.	A	A-D	A-J	A-K,M-R
Systemic & pulmonary hypertension	A,D-H	A-D	A-J	A-K,M-R
Care of children with cardiac invasive operations in the perioperative period.	B,D-H	A-D	A-J	A-R
Unit (Module) 1.9,Pediatric Endocrinology.				
Short stature.	B-H	A-D	A-J	A-K,M-R
Obesity.	A-H	A-D	A-J	A-K,M-R
Polyurea and polydipsia.	B,D-H	A-D	A-J	A-R
hypo- and hyperpituitarism.	A-H	A-D	A-J	A-K,M-R
Hypo- and hyperglycemia.	B-H	A-D	A-J	A-R
Hypo- and hyperthyroidism.	A-H	A-D	A-J	A-K,M-R
Hypo- and hypercalcemia	B,D-H	A-D	A-J	A-K,M-R
Hypo- and hyperadrenocorticism.	A-H	A-D	A-J	A-K,M-R
Delayed and precocious puberty.	B-H	A-D	A-J	A-K,M-R
Unit (Module) 2.1, Pediatric Intermediate & Intensive care medicine.				
Respiratory failure.	A,C-H	A-D	A-J	A-K,M-R
Status epilepticus.	A,C-H	A-D	A-J	A-K,M-R
Status asthmaticus.	A,C-H	A-D	A-J	A-K,M-R
Encephalopathy & coma (hepatic, uremic. hypertensive,.....).	A,D-H	A-D	A-J	A-K,M-R
Cardiogenic shock.	A,B,D-H	A-D	A-J	A-K,M-R
Septic shock.	A,C-H	A-D	A-J	A-K,M-R
C.N.S strokes.	A,C-H	A-D	A-J	A-K,M-R
Hematemesis.	B,D-H	A-D	A-J	A-K,M-R
Cardiac dysrhythmia.	B,D-H	A-D	A-J	A-K,M-R
Metabolic and acid base disorders.	B-H	A-D	A-J	A-K,M-R
Increase intracranial pressure.	A,C-H	A-D	A-J	A-K,M-R
DKA	A,B,D-H	A-D	A-J	A-R

Indications of ventilation	A,B,D-H	A-D	A-J	A-R
Unit (Module) 2.2, Neonatal and Neonatal Intensive care medicine.				
History & Physical examination in neonatal pediatrics.	B,D-H	A-D	A	A,B,E
Routine delivery room care.	B-H	A-D	F-J	A,B,E
Infant transport.& nursery care.	B-H	A-D	F-J	A,B,E
High risk infants (multiple gestations, prematurity, IUGR, post-term, large for gestational age).	A-H	A-D	A-J	A-R
Clinical manifestations of diseases in the neonatal period.	A-H	A-D	A,G-J	A-R
Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, air leak syndrome, diaphragmatic hernia, TOF, BP dysplasia).	A-H	A-D	A-J	A-R
Jaundice and kernicterus.	A-H	A-D	A-J	A-R
NEC.	A-H	A-D	A-J	A-R
Anemia, hemolytic disease of the newborn, hemorrhagic of the newborn, polycythemia, thrombocytopenia).	B-H	A-D	A-J	A-R
Hypoglycemia, IDM.	B-H	A-D	A-J	A-R
Neonatal sepsis.	A-H	A-D	A-J	A-R
HIE and neonatal seizures.	A-H	A-D	A-J	A-R

5. Course methods of teaching/learning

1. Didactic ; Lectures
2. Clinical rounds
3. Seminars
4. Clinical rotations
5. (service teaching) Observation
6. Post graduate teaching
7. Hand on workshops
8. Perform under supervision of senior staff

- 9. Simulations
- 10. Case presentation
- 11. Case Taking

6. Course methods of teaching/learning: for students with poor achievements

- 1. Didactic ; Lectures
- 2. Clinical rounds
- 3. Seminars
- 4. Clinical rotations
- 5. (service teaching) Observation
- 6. Post graduate teaching
- 7. Hand on workshops
- 8. Perform under supervision of senior staff
- 9. Simulations
- 10. Case presentation
- 11. Case Taking

7. Course assessment methods

I. Assessment tools:

- Clinical examination
- Written and oral examination
- Check list
- log book & portfolio
- Procedure/case presentation
- One MCQ examination in the second year and one in the third year
- Objective structured clinical examination
- Check list evaluation of live or recorded performance
- Patient survey
- 360o global rating

ii. **Time schedule:** At the end of the second year

iii. **Marks:** 1200 marks

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- Fundamentals of Pediatrics, Book by Staff Members of the Department of Pediatrics-Assiut University

ii. Essential books

- Nelson text book of Pediatrics 2020

iii. Recommended books

- Current diagnosis and treatment of pediatrics, 25 edition, 2020

iv. Periodicals, Web sites, ... etc

- Pediatrics
- Pediatric clinics of North America
- American journal of pediatrics
- Websites :www.pediatrics.com
www.pediatriceducation.com

9. Signatures

Course Coordinator:	Head of the Department:
Date:	Date:

ANNEX 2

Program Academic Reference Standards (ARS)

1- Graduate attributes for master degree in Pediatrics

The Graduate (after residence training and master degree years of study) must:

- 1-** Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit *in Pediatrics*.
- 2-** Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related speciality.
- 3-** Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Pediatrics.
- 4-** Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.
- 5-** Identify and share to solve health problems in his speciality.
- 6-** Acquire all competencies –including the use of recent technologies- that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in Pediatrics.
- 7-** Demonstrate 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.
- 8-** Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.
- 9-** Acquire decision making capabilities in different situations related to Pediatrics.

- 10-** Show 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.
- 11-** Be aware of public health and health policy issues and share in system-based improvement of health care.
- 12-** Show appropriate attitudes and professionalism.
- 13-** Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Pediatrics or one of its subspecialties.

2- Competency based Standards for clinical master degree graduates

2.1- Knowledge and understanding

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

2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

2-1-B- The relation between good clinical care of common health problems in the speciality and the welfare of society.

2-1-C- Up to date and recent developments in common problems related to Pediatrics.

2-1-D- Ethical and medicolegal principles relevant to practice in Pediatrics.

2-1-E -Quality assurance principles related to the good medical practice in Pediatrics.

2-1-F- Ethical and scientific basics of medical research.

2.2- Intellectual skills:

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

2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases of Pediatrics.

2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Pediatrics.

2.2- C- Demonstrating systematic approach in studying clinical problems relevant to Pediatrics.

2-2-D- Making alternative decisions in different situations in Pediatrics.

2.3- Clinical skills

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

2-3-A - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

2-3-B- Demonstrate patient care skills relevant to Pediatrics. for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of Pediatrics.

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- Demonstrate 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 all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

Competency-based objectives for Interpersonal and Communication Skills

2-4-D- Demonstrate 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- Demonstrate professionalism behaviors, 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- Demonstrate skills of effective time management.

2-4-H- 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 Master Degree 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 Master Degree doctors 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 MSc 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 MSc doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor's performance.
- ❖ Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- ❖ Procedure or Case Logs – MSc 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 a MSc 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 – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- ❖ Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc 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 – MSc 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 MSc doctors.

Annex 5, Program evaluation tools

By whom	Method	sample
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 الماجستير مع المعايير الأكاديمية
المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الماجستير في طب الاطفال

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

1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in Pediatrics.	1- إجادة تطبيق أساسيات و منهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in Pediatrics.	2- تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in Pediatrics.	3- تطبيق المعارف المتخصصة و دمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and update information.	4- إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in Pediatrics.	5- تحديد المشكلات المهنية و إيجاد حلول لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and evidence based clinical care including update use of new technology in Pediatrics.	6- إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية

7- Demonstrate 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.	7- التواصل بفاعلية و القدرة على قيادة فرق العمل
8- Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.	
9- Acquire decision making capabilities in different situations related to Pediatrics.	8- اتخاذ القرار في سياقات مهنية مختلفة
10- Show 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.	9- توظيف الموارد المتاحة بما يحقق أعلى استفادة و الحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of health care.	10- إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية
12- Show appropriate attitudes and professionalism.	11- التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Pediatrics or one of its subspecialties.	12- تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر

2. Academic standard

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	2-1-أ-النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in Pediatrics and the welfare of society.	2-1-ب-التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to Pediatrics..	2-1-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the Pediatrics..	2-1-د-المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in Pediatrics.	2-1-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	2-1-و- أساسيات وأخلاقيات البحث العلمي
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Pediatrics. 2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Pediatrics.	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل

2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Pediatrics	2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Pediatrics.	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the Pediatrics.	2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية
2.4.A-Demonstrate 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	2-2-هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص
2.4.A-Demonstrate 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	2-2-و- التخطيط لتطوير الأداء في مجال التخصص
2.2.D- Making alternative decisions in different situations in the field of Pediatrics.	2-2-ز- اتخاذ القرارات المهنية في سياقات مهنية متنوعة
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to Pediatrics for patients with common diseases and problems.	2-3-أ- إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3.C- Write and evaluate reports for	2-3-ب- كتابة و تقييم التقارير المهنية

Situation related to Pediatrics..	
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to that speciality for patients with common diseases and problems.	2-3-ج- تقييم الطرق و الأدوات القائمة في مجال التخصص
2.4.D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-4-أ- التواصل الفعال بأنواعه المختلفة
2.4.A-Demonstrate practice-based learning and improvement skills that investigation and involves evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice.	2-4-ب- استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
2.4.A-Demonstrate 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 all information sources and technology to improve his practice. 2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	2-4-ج- التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية

2.4.A-Demonstrate 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.	2-4-2-د- استخدام المصادر المختلفة للحصول على المعلومات و المعارف
2.4. C- Demonstrate skills of teaching and evaluating others.	2-4-2-هـ- وضع قواعد ومؤشرات تقييم أداء الآخرين
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.	2-4-2-و- العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة
2.4.G- Demonstrate skills of effective time management.	2-4-2-ز- إدارة الوقت بكفاءة
2.4.H- Demonstrate skills of self and continuous learning.	2-4-2-ح- التعلم الذاتي و المستمر

**Comparison between ARS and ILOS for master degree in
Pediatrics.**

(ARS)	(ILOS)
<u>2-1- Knowledge and understanding</u> 2-1-A- Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.	<u>2-1- Knowledge and understanding</u> A. 2-1-A- Explain the essential facts principles of relevant basic sciences including, Physiology, Microbiology, Pharmacology, Pathology, Basic of Pediatric medicine and Medical Reports related to Pediatrics. 2-1-B- Mention <u>essential facts</u> of clinically supportive sciences including Clinical Pathology, Public Health & Radiology related to Pediatrics 2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Pediatrics.
2-1-B The relation between good clinical care of common health problem in the Pediatrics and the welfare of society.	2-1-H- State the impact of common health problems in the field of Pediatrics on the society and how good clinical practice improve these problems.
2-1-C- Up to date and recent developments in common problems related to the field of Pediatrics.	2-1-C- Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Pediatrics. 2-1-D- Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Pediatrics.
2-1-D- Ethical and medicolegal Principles relevant to practice in the Pediatrics field.	2-1-E- Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the field of Pediatrics.

2-1-E- Quality assurance principles related to the good medical practice in the Pediatrics field.	2-1-F- Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Pediatrics.
2-1-F- Ethical and scientific basics of medical research	2-1-G- Mention the ethical and scientific principles of medical research methodology.
<u>2-2- Intellectual skills:</u> 2-2-A- Correlation of different relevant sciences in the problem solving and management of common diseases of the Pediatrics.	<u>2-2- Intellectual skills:</u> 2-2-A- Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Pediatrics.
2-2-B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Pediatrics.	2-2-B- Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Pediatrics.
2-2-C- Demonstrating systematic approach in studying clinical problems relevant to the Pediatrics field.	2-2-C- Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the Pediatrics field.
2-2-D Making alternative decisions in different situations in the field of the Pediatrics.	2-2-D- Formulate management plans and alternative decisions in different situations in the field of the Pediatrics.

Continuous (ARS)	continuous (ILOs)
<u>2-3- Clinical skills:</u> 2-3-A- Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2-3-B- Demonstrate patient care skills relevant to that Pediatrics for patients with common diseases and problems.	<u>2/3/1/Practical skills (Patient Care :)</u> 2-3-1-A- Obtain proper history and examine patients in caring and respectful behaviors. 2-3-1-B- Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Pediatrics. 2-3-1-C- Carry out patient management plans for common conditions related to Pediatrics. 2-3-1-D- Use information technology to support patient care decisions and patient education in common clinical situations related to Pediatrics. 2-3-1-E- Perform competently non invasive and invasive procedures considered essential for the Pediatrics. 2-3-1-F- Provide health care services aimed at preventing health problems related to Pediatrics.. 2-3-1-G- Provide patient-focused care in common conditions related to Pediatrics , while working with health care professionals, including those from other disciplines.
2-3-C- Write and evaluate reports for situations related to the field of	-3-1-H Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write

Pediatrics.	a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).
<u>2-4- General skills</u> 2-4-A- Demonstrate 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	<u>2/3/2 General skills</u> 2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks). 2-3-2-B- Appraises evidence from scientific studies. 2-3-2-C- Conduct epidemiological studies and surveys.
2-4-B- Use all information sources and technology to improve his practice.	2-3-2-C- Conduct epidemiological studies and surveys. 2-3-2-D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
2-4-C- Demonstrate skills of teaching and evaluating others.	2-3-2-E- Facilitate learning of students other health care professionals including their evaluation and assessment.
2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-3-2-F- Maintain therapeutic and ethically sound relationship with patients. 2-3-2-G- Elicit information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-H- Provide information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-I- Work effectively with others as a

	member of a health care team or other professional group.
2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	2-3-2-J- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society. 2-3-2-K- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices. 2-3-2-L- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
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.	2-3-2-M- Work effectively in relevant health care delivery settings and systems including good administrative and time management 2-3-2-N- Practice cost-effective health care and resource allocation that does not compromise quality of care. 2-3-2-O- Assist patients in dealing with system complexities.
2-4-G- Demonstrate skills of effective time management	2-3-2-M- Work effectively in relevant health care delivery settings and systems including good administrative and time management
2-4-H- Demonstrate skills of self and continuous learning.	2-3-2-A- Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).

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	2/1/F	2/1/G	2/1/H
Course 1 : Physiology and Microbiology	✓							
Course 2: Pharmacology and Pathology	✓							
Course 3: Basic of Pediatric Medicine	✓							
Course 4 : Medical Reports	✓							
Course 5: Clinical Pathology		✓						
Course 6 : Public health and Radiology		✓						
Course 7: Pediatric Medicine	✓	✓	✓	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Physiology and Microbiology	✓	✓		
Course 2: Pharmacology and Pathology	✓			
Course 3: Basic of Pediatric Medicine	✓	✓		
Course 4 : Medical Reports	✓	✓		
Course 5: Clinical Pathology	✓			
Course 6 : Public health and Radiology	✓	✓		
Course 7: Pediatric Medicine	✓	✓	✓	✓

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 : Physiology and Microbiology								
Course 2: Pharmacology and Pathology								
Course 3: Basic of Pediatric Medicine								
Course 4 : Medical Reports								
Course 5: Clinical Pathology				✓	✓			
Course 6 : Public health and Radiology				✓	✓			
Course 7: Pediatric Medicine	✓	✓	✓	✓	✓	✓	✓	✓

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 : Physiology and Microbiology				✓				✓
Course 2: Pharmacology and Pathology				✓				✓
Course 3: Basic of Pediatric Medicine				✓				✓
Course 4 : Medical Reports				✓				✓
Course 5: Clinical Pathology				✓				✓
Course 6 : Public health and Radiology				✓				✓
Course 7: Pediatric Medicine	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

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 : Physiology and Microbiology			✓		✓			
Course 2: Pharmacology and Pathology			✓		✓			
Course 3: Basic of Pediatric Medicine			✓		✓			
Course 4 : Medical Reports			✓		✓			
Course 5: Clinical Pathology			✓		✓			
Course 6 : Public health and Radiology	✓	✓	✓	✓	✓	✓	✓	✓

Annex 7, Additional information:

Department information:

The Assiut University Children Hospital is a separate building among Assuit University Hospitals. It consists of 6 floors and includes many units. The inpatient wards have a total capacity of 466 beds in 15 units:

1. General Ward : 42 beds.
2. Intermediate Care & Intensive Care Unit : 15 & 20 beds.
3. Neonatal and Neonatal Intensive Care Unit : 7 beds and 48 well equipped incubators.
4. Nephrology & Urology Unit : 26 beds and 14 hemodialysis machines.
5. Neurology Unit : 10 beds.
6. Hematology Unit & thalassemia center: 14 beds and 10 beds.
7. Cardiology Unit : 10 beds.
8. Pulmonology & TB Unit : 16 beds.
9. Emergency Unit : 38 beds.
10. Gastroenterology, Hepatology & Rehydration Unit: 12 beds and 40 beds.
11. Pediatric Surgery Unit : 36 beds.
12. Genetics Unit : 2 beds.
13. Private and Health Insurance Section: 88 beds.
14. Endocrine & diabetes Unit: 12 beds
15. Rheumatology & Immunology unit: 8 beds
16. Nutrition unit: 4 beds

Outpatient clinics:

1. 3 General pediatric clinics.
2. Rehydration clinic.
3. Hepatology clinic.
4. Hematology clinic.
5. Cardiology clinic.
6. Nephrology clinic.
7. Neurology clinic.
8. Pulmonology and TB clinic.
9. Well baby and vaccination clinic.
10. Genetics clinic.

11. Endocrine & Diabetes clinic.
12. Rheumatology & Immunology clinic
13. Nutrition clinic

Staff members:

Prof. : Farouk Hassanein
Prof. :Fardouse Abdel-Aal
Prof. : Faida Mostafa
Prof. :Safeia Eldeeb
Prof. :Faheem Mohammad
Prof. : Amal Abdelsalam
Prof. :Mohammad Ghazaly
Prof. : Samia Atwa
Prof. :Asmaa Shoreet
Prof. :Abdellateef Mohammad
Prof. : Ekram Ali Hashem
Prof. : Mostafa Elsaed
Prof. :Alsaied Khaleel
Prof. :Zainab MoheyEldeen
Prof. : Gehan Kamal
Prof. : Gaffar Ebraheem
Prof. : Fatma Abdelfatah
Prof. :Salah Eldeen Amry
Prof. :Ahmad Askar
Prof. :Naglaa mostafa
Prof. : Maher Mokhtar
Prof. :Mohammad Mahrous
Prof. :Nagwa Ali
Dr. Zainab Elkady
Prof. Ahmad Roshdy
Prof. Emad Hammad
Prof. Hanaa Abdellateef
Prof. Gamal Askar
Prof. Mostafa Shafeek
Prof. Ghada Omar

Prof. Nafisa Hassan
Prof. Khaled Elsaieh
Prof. Azza Eltaieb
Prof. Mohammad Ameer
Prof. Naglaa Hassan
Prof. Kotb Abbas
Prof. Khaled Elsonossy
Dr. Yasser Farouk
Dr. Alam Eldeen Mohammad
Prof. Khaled Saad
Dr. Khaled Hashem
Prof. Doaa Rafat
Prof. Esmail Lotfy
Prof. Hekma Saad
Prof. Osama El-esheery
Dr. Faisal Elkhateeb
Dr. Ahlam Badawi
Dr. Almontaser Bellah
Dr. Eman Askar
Dr. Esraa Elozeeli
Dr. Mostafa Embabi
Dr. Eman Fath-Allah
Dr. Safwat Abdel-Azeez
Dr. Shereen Mansour
Dr. Amara Shalabi
Dr. Samaher Fathi
Dr. Ahmad Ebraheem
Dr. Ameer Aboelgheet
Dr. Mervat Ameen
Dr. Mohammad Gameel
Dr. Nagla Samy
Dr. Marwa Mohamed Hamdi
Dr. Mohamed Said
Dr. Yasser Gamal
Dr. Mohamed Abubakr

Dr. Mohamed Khalaf
Dr. Khalaf Abdelaal Said
Dr. Mahmoud Abdelfattah
Dr. Randa Abdelbadeah
Dr. Azhar araby
Dr. shaima Kamal
Dr. Rehab Ibrahim
Dr. Asmaaa Mohamed

Opportunities within the department:

- X ray, diagnostic sonography, echocardiography, gastrointestinal endoscopy, EEG, laboratories and pharmacies.
- Scientific Library contain Pediatrics Text Books and periodicals, MD& MSC thesis.
- Congress room with data show.
- Seminar and conference rooms with data show.
- Seven teaching rooms.
- skill laboratory.
- 2 computer labs contain 28 computers for exams
- Hospital information system recording all the cases, procedures and out patient clinic data.

Department quality control insurance for completing the program:

Regular assessments.

Log book monitoring:

Recent equipments and Specialized Units.

(End of the program specifications)