



كلية الطب
وحدة ضمان الجودة



Faculty of Medicine
Quality Assurance Unit

Medical Doctorate (M.D.) Degree Program and Courses Specifications for Pediatrics

(According to currently Credit point applied **by laws**)

***Pediatric Department
Faculty of medicine
Assiut University
2022-2023***

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M. D. degree of Pediatrics

A. Basic Information

-  **Program Title: MD. Degree of Pediatrics**
-  **Nature of the program: Single.**
-  **Responsible Department: Pediatric Department**
-  **Program Academic Director (Head of the Department):**
Prof. Emad El-Deen Mahmoud Hammad

-  **Coordinator (s):**
 - Principle coordinator:** Prof. Nafisa Hassan Refat
 - Assistant coordinator (s)** Dr. Eman Fathalla Gad
Dr. Shimaa Kamal Mohamed
- Internal evaluators:** Prof. Hamdy Ghazaly
Prof. Abdellateef Mohammad
- External evaluator:** Prof. Ali Abo-Elmagd – **Sohag 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: 6 courses + 2 Elective courses**

B. Professional Information

1- Program aims

1/1 To enable candidates to keep with international standards of Pediatric patients care by mastering 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 and enabling the candidates of making appropriate referrals to a sub-specialist

1/2 To provide assistant lecturers with fundamental knowledge of Pediatric intensive care medicine as regards; mastering dealing with critically ill Pediatric patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.

1/3 To enable candidates to perform high standard scientific medical research and how to proceed with publication in indexed medical journals.

1/4 To enable candidates to describe the basic ethical and medicolegal principles relevant to Pediatrics.

1/5 To enable candidates to have professional careers as a consultant in Egypt but recognized abroad.

1/6 To enable candidates to continue self learning in subspecialties.

1/7 To enable candidates to master different research methodology and do their own.

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

2/1 Knowledge and understanding:

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

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

2/2 Intellectual outcomes

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

2/3 Skills

2/3/1 Practical skills (Patient Care)

Students will be able to:

A. Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

p.s. Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice.

B. Provide extensive level of patient care ***for patients with all common diagnoses and for uncomplicated procedures*** related to Pediatrics.

C. Provide extensive level of patient care ***for non-routine, complicated patients and under increasingly difficult circumstances***, while demonstrating compassionate, appropriate and effective care.

D. Perform diagnostic and therapeutic procedures considered essential in the field of Pediatrics.

E. Handle unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.

F. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in the Pediatrics related situations.

G. Gather essential and accurate information about patients of the Pediatrics related conditions.

H. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the Pediatrics related conditions.

I. Develop and carry out patient management plans for Pediatrics related conditions.

J. Counsel and educate patients and their families about speciality related conditions.

K. Use information technology to support patient care decisions and patient education in all Pediatrics related clinical situations.

- L. Perform competently all medical and invasive procedures considered essential for the Pediatrics related conditions / area of practices.
- M. Provide health care services aimed at preventing the Pediatrics related health problems.
- N. Lead health care professionals, including those from other disciplines, to provide patient-focused care in Pediatrics related conditions.
- O. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)

2/3/2 General skills

Including:

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

Practice-Based Learning and Improvement

- A. Demonstrate the competency of care provision to patients in the different area of Pediatrics
- B. Appraise scientific evidence.
- C. Continuously improve patient care based on constant self-evaluation and life-long learning.
- D. Participate in clinical audit and research projects.
- E. Practice skills of evidence-based Medicine (EBM).
- F. Educate and evaluate students, residents and other health professionals.
- G. Design logbooks.

- H. Design clinical guidelines and standard protocols of management.
- I. Appraise evidence from scientific studies related to the patients' health problems.
- J. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
- K. Use information technology to manage information, access on-line medical information; for the important topics.

Interpersonal and Communication Skills

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

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

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

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

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

Professionalism

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

Q. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.

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

Systems-Based Practice

- S. Work effectively in health care delivery settings and systems related to Pediatrics including good administrative and time management.
- T. Practice cost-effective health care and resource allocation that does not compromise quality of care.
- U. Advocate for quality patient care and assist patients in dealing with system complexities.
- V. Design, monitor and evaluate specification of under and post graduate course and programs.
- W. Act as a chairman for scientific meetings including time management.

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

Academic standards for Medical Doctorate (MD) degree in Pediatrics

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

In preparing these standards, the General Academic Reference Standards for postgraduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program.

These standards were approved by the faculty council on 20/3/2010. These standards were revised and approved without changes by the Faculty Council on 23-9-2014.

4- Program External References (Benchmarks)

1. ACGME (Accreditation Council for Graduate Medical education)
http://www.acgme.org/acWebsite/navPages/nav_Public.asp
2. American Board of Pediatrics
<https://www.abp.org/ABPWebStatic/>

Comparison between program and external reference		
Item	Pediatrics program	American Board of Pediatrics
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	4 -6 years	Different
Requirement	Different	Different
Program structure	Different	Different

5- Program Structure

A. Duration of program: 4 - 6 years

B. Structure of the program:

Total number of credit points: = 420 CP

Master degree: 180 credit point

Didactic: 37 CP (23.1%), practical 123 (76.9%), total 160 CP

First part: Didactic 10 (100%), practical 0 (0 %), total 10 CP

Second part: Didactic: 24 (16.3 %), practical 123 (83.7 %), total 147 CP

Thesis and researches: 80 CP (33.3%)

Elective courses: 3 credit points

#Didactic (lectures, seminars, tutorial)

According the currently applied by laws:

Total courses: 160 credit point

Compulsory courses: 157 credit point (98.1%)

Elective courses: 3 credit point (1.9%)

	Credit point	% from total
Basic science courses	10	4.1%
Humanity and social courses	3	1.2%
Speciality courses	147	61.3%
Others (Computer, ...)	-	0
Field training	123	51.3%
Thesis	40	16.7%
2 published researches	40	16.7%
Master degree	180	

C. Program Time Table

Duration of program 4 years divided into

- Part 1

Program-related Basic science courses:

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

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

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

- Thesis and 2 published researches

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

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

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

- Part 2

Program –related speciality courses and ILOs

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

- Two elective courses can be set during either the 1st or 2nd parts.

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

Total degrees 1700 marks.

500 marks for first part

1200 for second part

Written exam 40% - 70%.

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

D. Curriculum Structure: (Courses):

✚ Levels and courses of the program:

Courses & student work load list*	Course Code	Credit points		
		didactic #	training	total
First Part				
Basic science courses (10 CP)				
Course 1: Medical Statistics	FAC309A	1		1
Course 2: Research Methodology	FAC309B	1		1
Course 3: Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	FAC310C	1		1
Course 4: Applied Physiology	PED303	2		2
Course 5: General Basics of Pediatrics.	PED325A	5		5
Elective courses**	3 CP			
- Elective course 1		1.5		1.5
- Elective course 2		1.5		1.5
Thesis	40 CP			
Published researches***	40 CP			
Second Part				
<u>Speciality Courses</u>				
Course 6: " Advanced Pediatrics "	PED325B	24		24
Speciality Clinical Work (123 CP)	PED325B		123	123
Total of second part		24	123	147

*Student work load calculation:

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

#Didactic (lectures, seminars, tutorial)

** Elective courses can be taken during either the 1st or 2nd parts.

Elective Courses:

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

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

Thesis / Researches:

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

Course 6 " Advanced Pediatrics "**

Units	% of total	Years	Core Credit Points		
			Didactic	training	Total
Unit 1: General Ped. Medicine	10%	1	4	13	17
Unit 2: Ped. Emergency Unit	9%	1	2	11	13
Unit 3: Ped. GIT & Hepatology Unit	9%	1	2	11	13
Unit 4: Ped. Hematology & Onchology Unit	9%	2	2	11	13
Unit 5: Ped. & Nephrology & Urology Unit	9%	2	2	11	13
Unit 6: Ped. Neurology & Psychology Unit	9%	2	2	11	13
Unit 7: Ped. Pulmonology & TB Unit	9%	3	2	11	13
Unit 8: Ped. Cardiology Unit	9%	3	2	11	13
Unit 9: Ped. Endocrinology & Diabetes Unit	9%	3	2	11	13
Unit 10: Ped. Intensive Care Unit	9%	4	2	11	13
Unit 11: Neonatology & NICU	9%	4	2	11	13
Total: 11 Unit	100%	4 years	24	123	147

6. Courses Contents (Annex 1)

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

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

7-Admission requirements

 Admission Requirements (prerequisites) if any :

I. General Requirements:

- Master degree in the Pediatrics.

II. - Specific Requirements:

- Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is to give working assistant lecturer 1-week leave prior to first part and 3-week leave prior to second part exams.

FEES:

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

8-Progression and completion requirements

-  Examinations of the first part (Medical statistic, Research methodology and Medicolegal Aspects and Ethics in Medical Practice and Scientific Research) could be set at 6 months from registering to the MD degree.
-  Students are allowed to sit the exams of the remaining Basic science courses of the first part after 12 months from applying to the MD degree.
-  Examination of the second part cannot be set before 4 years from registering to the degree.
-  Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, either before or after setting the second part exams.
-  The minimum duration of the program is 4 years.

The students are offered the degree when:

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

9-Program assessment methods and rules (Annex IV)

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

Courses		Degrees			
Courses	Course Code	Written Exam	Oral *	Practical / Clinical Ex	Total
First Part					
Basic science courses:					
Medical Statistics	FAC309A	35	15		50
Research Methodology	FAC309B	35	15		50
Medicolegal Aspects & Ethics in Medical Practice and Scientific Research	FAC310C	35	15		50
Course 4: Applied Physiology	PED303	70	30		100
Course 5: General Basics of Pediatrics.	PED325A	190	60		250
Paper 1		70			
Paper 2		120			
Total of the first part					500
Second Part					
	Course code	written	Oral*	Practical / Clinical Ex	Total
Speciality Courses					
* Advanced Pediatrics	CHT319B		360	360	
Paper 1: Advanced Pediatrics paper		100			
Paper 2: Advanced Pediatrics paper		100			
Paper 3: Advanced Pediatrics paper		100			
Paper 4 Advanced Pediatrics (Subspeciality)		80			
Paper 5: Advanced Pediatrics (Commentary)		100			
Total of The second part		480	360	360	1200
Elective course 1		50		50	100
Elective course 2		50		50	100

* 25% of the oral exam for assessment of logbook

Total degree 1900

500 marks for first part

1200 for second part

Written exam 40% (480 marks)

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

Examination system:

➤ First part:

- Written exam 2 hours in Medical Statistics and Research Methodology + oral examination
- Written exam 1 hours in Medicolegal Aspects and Ethics in Medical Practice and Scientific Research + oral examination
- Written exam 3 hours in (Applied Physiology) + oral exam
- Written exam 2 papers (2 hours , 3 hours) in General Basics of Pediatric + oral exam

➤ Second part:

- Written exam five papers (Paper 1, paper 2, paper 3, 3 hours for each in Advanced Pediatrics , paper4: 2 hours in Subspeciality and Paper 5: commentary 2 hours + Oral exam+ Clinical/Practical exam

➤ Elective courses

- Written exam one paper 1 hour in Elective course 1 + Oral & Practical exam
- Written exam one paper 1 hour in Elective course 2 + Oral & Practical exam

10-Program evaluation

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. Nafisa Hassan Refat		9/2022
Head of the Responsible Department (Program Academic Director):	Prof. Emad El-Deen Mahmoud Hammad		9/2022

Annex 1, Specifications for Courses / Modules

Annex 1: Specifications for courses

First Part

- 1) Course 1: Medical Statistics
- 2) Course 2: Research Methodology
- 3) Course 3: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- 4) Course 4: Applied physiology
- 5) Course 5: General Basics of Pediatric

Course 1: Medical statistics

Name of department: Public Health and Community Medicine

Faculty of medicine

Assiut University

2022-2023

1. Course data

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

2. Course Aims

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

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

A knowledge and understanding

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

H. Identify the concepts of correlation and regression	Lecture and discussion	Written examination
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B. intellectual

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

C. Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design data entry files.	Tutorial on	Assignments

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

D general skills

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Introduction	A-F	A-D	-	A&B
Tables and graphics	D	A-D	-	A&B
Sampling	C	-	-	A&B
Methodology of data collection	B	-	-	A&B
Type of variables	A	-	-	A&B
Proportion test& Chi-square test	E,F	C&D	-	A&B
Student T test& Paired T test	E,F	C&D	F	A&B
ANOVA test	E,F	C&D	F	A&B
Non parametric tests	E,F	C&D	F	A&B
Discrimination analysis factor analysis	E,F	C&D	-	A&B

SPSS Introduction	A-F	A-D	-	A&B
Data entry and cleaning of data	A	A-D	A-C	A&B
Transforming of variables	A	A&B	A-C	A&B
Descriptive statistics	D	A-D	D&E	A&B
Graphic presentation	D	A&B	D	A&B
Chi square and interpretation of results	E,F	C&D	F	A&B
Correlation Regression	E,F	C&D	F	A&B
Multiple and logistic Regression	E,F	C&D	F	A&B

5. Course Methods of teaching/learning

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

6. Course assessment methods:

- i. **Assessment tools:**
 1. Attendance and active participation
 2. Assignment
 3. Practical SPSS examination
 4. Written exam
- ii. **Time schedule:** After 6 months from applying to the M D degree.
- iii. **Marks:** 50 (35 for written exam and 15 for practical exam).

7. List of references

- i. **Lectures notes**
Department lecture notes
- ii. **Essential books**
 - Medical Statistics: Book by Ramakrishna HK 2016

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

lii- Recommended books

- Ji-Qian Fang (Sun Yat-Sen University, China) Handbook of Medical Statistics: <https://doi.org/10.1142/10259> | September 2017.Pages: 852
- Robert H. Riffenburgh: Statistics in Medicine 4th Edition (2020). EvidenceEvidence Based Medicine How to practice and teach EBM.
- Discovering Statistics Using IBM SPSS Book by Andy Field, 2013.

iii. Periodicals, Web sites, etc

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

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

8. Signatures

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

Course 2: Research Methodology

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

1. Course data

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

2. Course Aims

To provide graduate students with the skills of:

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

3. Intended learning outcomes (ILOs)

A knowledge and understanding

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

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

B. intellectual

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

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

C. Practical skills

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

D General skills

Practice-Based Learning and Improvement

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

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
G- Maintain ethically sound relationship with community members.	- Lectures - Practical sessions - Discussion - Readings	Written exams

H- Provide information using effective nonverbal, explanatory, questioning, and writing skills.	- Lectures - Practical sessions - Discussion - Readings	Written exams Practical exams
I- Present results of researches in seminars.	- Lectures - Practical sessions - Discussion - Readings	Log book assignments

Professionalism

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
Over view on research	A&E	A-D	A-C	C-G,

conduction and research ethics				I,L&M-O
How to write a research proposal	F,I	E	F	A-C&H
Observational study design	A& D	B & C	D	E & F
Experimental study design	A& D	B & C	B	E & F
Evaluation of diagnostic tests (Screening)	L	A	B& E	F
Systematic reviews and meta analysis	G, H & M	E& F	F	C, D
Confounding, bias & effect modification	B & K	D	E & G	M

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

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

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

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

7. List of references

i. Lectures notes

- Department lecture notes

ii. Essential books

- Research Design: Qualitative, Quantitative and Mixed Methods Approaches 4th Edition by John W. Creswell SAGE Publications, Inc; 4th edition (January 1, 2014)

- Research methodology: A step – by – step Guide for Beginners. Ranjit Kumar, 2020. Second edition <https://books.google.com.eg/books?>
- Medical Research Essentials Rania Esteitie, McGraw Hill Professional, third edition, Feb 5, 2014 - Medical - 104 pages
- Research Methodology in the Medical and Biological Sciences Petter Laake, Haakon Breien Benestad, Bjorn R. Reino Olsen, 4th edition , Academic Press, Nov 5, 2007 - Science - 512 pages

iv. Recommended books

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

8. Signatures

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

Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Name of department:

Forensic medicine and clinical toxicology

Faculty of medicine

Assiut University

2016-2017

1. Course data

-  **Course Title: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research**
-  **Course code: FAC310C**
-  **Speciality: *General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology Emergency Medicine (1st part).***
-  **Number of credit points: 1 credit point**
-  **Department (s) delivering the course: Forensic Medicine and Clinical Toxicology**
-  **Coordinator (s):**
 - **Course coordinator:**
Prof. Ghada omran
 - **Assistant coordinator (s) Assist.**
Prof. Zaghloul Thabet
-  **Date last reviewed: September 2017**
-  **Requirements (prerequisites) if any :**
 - **Completed Master degree.**

2. Course Aims

To describe the basic ethical and medicolegal principles and bylaws relevant to practice in the field of General medicine, Special medicine, Pediatrics, Public health, Oncology and Rheumatology

3. Intended learning outcomes (ILOs):

A knowledge and understanding

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Mention principals of Taking consent.	Lecture and discussion	Oral &Written exam
B. Mention principals of Writing a death certificate	Lecture and discussion	Oral &Written exam
C. Mention principals of diagnosing death.	Lecture and discussion	Oral &Written exam
D. Mention principals of writing toxicological reports.	Lecture and discussion	Oral &Written exam
E. Explain principals of medical reports.	Lecture and discussion	Oral &Written exam
F. List indications and principals of induced emesis, gastric lavage and samples collection.	Lecture and discussion	Oral &Written exam

B. intellectual

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

C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Identify medical ethics and ethics in research.	Lecture and discussion	Reading Discussion
B. Prepare and write consent.	Lecture and discussion	Reading Discussion
C. Identify medical responsibilities.	Lecture and discussion	Reading Discussion
D. Write death certificate.	Lecture and discussion	Reading Discussion and active participation
E. Deal with a case of Suspicious death	Lecture and discussion	Reading Discussion and active participation
F. Perform gastric lavage, induce emesis, and obtain samples.		
G. Write medical and toxicological reports	Lecture and discussion	Reading Discussion and active participation
H. Develop and carry out		

patient management plans for Euthanaesia, and Organ Transplantation		
I. Counsel patients and their families about speciality related conditions including Permanent infirmities, Euthanasia, and Organ Transplantation		

D general skills

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

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

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
1. Death and death certificate.	B,C	A	D,E	A
2. Medical Reports	A		G	A,D,E
3. Toxicological reports	D,F	B	G,F	A,E
4. Ethics in research.	A		A	
5. Medical ethics.	E		A,B,C,H,I	B,C,E

5. Course Methods of teaching/learning:

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

6. Course assessment methods:

i. Assessment tools:

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

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

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

7. List of references

i. Lectures notes

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

ii. Essential books

- Bernard Knight and Pekka Saukko (2015: Knight Forensic Pathology. Hodder Arnold press

- Goldfrank, Lewis R.; Howland, Mary Ann; Hoffman, Robert S.; Nelson, Ewis S.; Lewin, Neal A (2019): Goldfrank's Toxicologic Emergencies, 11th ed. McGraw Hill / Medical.
- 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. Journal and web site

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

8. Signatures

- Course Coordinator: Prof. Ghada Omran	- Head of the Department: Prof. Randa Hussein Abdel hady
Date: 17-9-2017	Date: 17-9-2017

Course 4: Applied Physiology

Name of department: Pediatric Department

Faculty of medicine

Assiut University

2022-2023

1. Course data

-  **Course Title:** Applied Physiology
-  **Course code:** PED303
-  **Speciality:** Pediatrics.

-  **Number of credit points:** 2 credit point for didactic (100%)
-  **Department (s) delivering the course:** Physiology and Pediatric Departments
-  **Coordinator (s):**
 - **Principle coordinator:** Prof. Hamdy Ghazaly
 - **Assistant coordinator :** Prof. Abdellateef Mohammad
-  **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

To acquire the physiological background necessary for pediatrics in clinical reasoning, diagnosis and management of pediatric diseases.

3. Course intended learning outcomes (ILOs):

A. Knowledge and understanding

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Mention Principles of: Respiratory System: 1- Functional structure of the respiratory system. 2- respiratory cycle, its mechanism, intrapleural pressure, surfactant, work of breath and compliance of lungs. 3- Regulation of normal respiration. Cardiovascular system: 1- Regulation of the heart rate. 2- The cardiac output and its components. Autonomic nervous system: 1- The structure and functions of the ANS 2- The autonomic receptors and chemical transmitters. Blood: 1- The general components of blood and its functions. Metabolism: Regulation of body temperature: • The centre and mechanism for regulation of body temperature. • the reaction of body on exposure to cold and hot	Lectures	Written and oral examination

Abnormalities of regulation of body temperature. Kidney & Acid base balance: Glomerular filtration rate & clearance. Digestion : Mechanism of digestion		
B. Describe Physiologic details of Respiratory System: - Gas transport in blood (oxygen dissociation curve and CO₂ curve) - The respiratory functions of the blood and some disorders of the respiratory system as dyspnea, hypoxia and cyanosis). Cardiovascular system: - The arterial blood pressure and its regulation. - Describe ECG and its clinical significant. Blood: - The mechanism of blood coagulation. - Mention some of clinical conditions occurring due to abnormalities of one or more of the blood components. Kidney & Acid base balance: Renal role in acid base balance Endocrine: Control of endocrine glands. Function of hypothalamus & pituitary gland. Function of Thyroid gland. Function of parathyroid gland Function of Adrenal cortex & medulla Function of pancreas. Function of gonads Digestion : Describe Mechanism of digestion		

B. Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Apply the basic (physiological) supportive sciences which are appropriate to Pediatrics related problems.	-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 Pediatrics .		

C. Practical skills

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 and oral communication	Oral exam Logbook

Interpersonal and Communication Skills

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

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	- Observation & supervision Written & oral communication	Logbook Oral Exam

Systems-Based Practice

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

4. Course contents (topics/modules/rotation)

Course Matrix

Time Schedule: First part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Functional structure of the respiratory system	A	A,B	-	A-D
respiratory cycle, its mechanism, intrapleural pressure, surfactant, work of breath and compliance of lungs	A	A,B	-	A-D
Regulation of normal respiration	A	A,B	-	A-D
Gas transport in blood (oxygen dissociation curve and CO ₂ curve)	B	A,B	-	A-D
The respiratory functions of the blood and some disorders of the respiratory system as dyspnea, hypoxia and cyanosis)	B	A,B	-	A-D
Cardiovascular system:				
Regulation of the heart rate	A	A,B	-	A-D
The cardiac output and its components	A	A,B	-	A-D

The arterial blood pressure and its regulation	B	A,B	-	A-D
Describe ECG and its clinical significant	B	A,B	-	A-D
Blood:				
The general components of blood and its functions	A	A,B	-	A-D
The mechanism of blood coagulation	B	A,B	-	A-D
Clinical conditions occurring due to abnormalities of one or more of the blood components	B	A,B	-	A-D
Metabolism:				
Regulation of body temperature	A	A,B	-	A-D
The centre and mechanism for regulation of body temperature	A	A,B	-	A-D
The reaction of body on exposure to cold and hot	A	A,B	-	A-D
Abnormalities of regulation of body temperature	B	A,B	-	A-D
Kidney & Acid base balance:				
Glomerular filtration rate & clearance	B	A,B	-	A-D
Renal role in acid base balance	B	A,B	-	A-D

Digestion :				
Mechanism of digestion	B	A,B	-	A-D
Describe Mechanism of digestion	B	A,B	-	A-D
Endocrine:				
Control of endocrine glands	B	A,B	-	A-D
Function of hypothalamus & pituitary gland	B	A,B	-	A-D
Function of Thyroid gland	B	A,B	-	A-D
Function of parathyroid gland	B	A,B	-	A-D
Function of Adrenal cortex & medulla	B	A,B	-	A-D
Function of pancreas	B	A,B	-	A-D
Function of gonads	B	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

Extra didactic (lectures, seminars, tutorial)

7. Course assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. **Time schedule:** After 12 months from applying to the M D degree.

v. **Marks:** 100

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 2021

iii. Recommended books

- Forfar textbook of pediatrics, 8th edition,

iv. Periodicals, Web sites, ... etc

- Pediatrics.
- Pediatric clinics of North America
- Acta Paediatrica
- Archives disease of childhood

9. Signatures

Course coordinator: Prof. Nafisa Hassan Refat	Head of the Department: Prof. Emad El-Deen Mahmoud Hammad
Date:	Date:

Course 5: General Basics of Pediatric

Name of department: Pediatric Department
Faculty of medicine, Assiut University

1. Course data

-  **Course Title:** General Basics of Pediatrics
-  **Course code:** PED325A
-  **Speciality:** Pediatrics.
-  **Number of credit points:** 5 credit point for didactic (100%)
-  **Department (s) delivering the course:** Pediatric Department
-  **Coordinator (s):**

Principle coordinator: Prof. Nafisa Hassan Refat

- **Assistant coordinator :** Dr. Eman Fath Allah

Dr. Shimaa Kamal Mohamed

-  **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

To acquire the General Basics of Pediatric background necessary for pediatrics in clinical reasoning, diagnosis and management of pediatric diseases.

3. Course intended learning outcomes (ILOs):

A. Knowledge and understanding

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Describe Principles of: - The field of Pediatrics -Growth & development and behaviour -Social pediatrics -Nutritional requirement -Feeding of infants & children -Malnutrition & obesity -Vitamin deficiency & excess -Pathophysiology of body fluids -Regulation of electrolytes -Fluid & electrolyte ttt of special disorders - Critically ill child -Human genetics -Preventive pediatrics -Environmental health hazards	Lectures	Written and oral examination

B. Intellectual outcomes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Apply the basic (General basics of pediatrics) supportive sciences which are appropriate to Pediatrics related problems.	-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 Pediatrics .		

C. Practical skills

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 and oral communication	Oral exam Logbook

Interpersonal and Communication Skills

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

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	- Observation and supervision Written & oral communication	Logbook Oral Exam

Systems-Based Practice

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

4. Course contents (topics/modules/rotation)

Course Matrix

Time Schedule: First part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
The field of Pediatrics	A	A,B	-	A-D
-Growth & development and behaviour	A	A,B	-	A-D
-Social pediatrics	A	A,B	-	A-D
-Nutritional requirement	A	A,B	-	A-D
-Feeding of infants & children	A	A,B	-	A-D
-Malnutrition & obesity	A	A,B	-	A-D
-Vitamin deficiency & excess	A	A,B	-	A-D
-Pathophysiology of body fluids	A	A,B	-	A-D
-Regulation of electrolytes	A	A,B	-	A-D
-Fluid & electrolyte ttt of special disorders	A	A,B	-	A-D
- Critically ill child	A	A,B	-	A-D
-Human genetics	A	A,B	-	A-D
-Preventive pediatrics	A	A,B	-	A-D
-Environmental health hazards	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

Extra didactic (lectures, seminars, tutorial)

7. Course assessment methods:

i. Assessment tools:

1. Written and oral examination
2. Log book

ii. Time schedule: After 12 months from applying to the M D degree.

iii. Marks: 250

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, 21th edition

iii. Recommended books

- Forfar textbook of pediatrics, 8th edition

iv. Periodicals, Web sites, ... etc

- Pediatrics.
- Pediatric clinics of North America
- Acta Paediatrica
- Archives disease of childhood

9. Signatures

Course coordinator: Prof. Nafisa Hassan Refat	Head of the Department: Prof. Emad El-Deen Mahmoud Hammad
Date:	Date:

Second Part

Course 6: Advanced Pediatrics

Name of department: Pediatric Department
Faculty of medicine, Assiut University

1. Course data

-  **Course Title:** Advanced Pediatrics
-  **Course code:** PED325B
-  **Speciality:** Pediatrics.
-  **Number of credit points:** 147 credit point - didactic 24 credit point (16.3%) - practical 123 credit point (83.7%)
-  **Department (s) delivering the course:** Pediatric Department
-  **Coordinator (s):**
 - Principle coordinator:** Prof. Nafisa Hassan Refat
 - **Assistant coordinator :** Dr. Eman Fath Allah
 - Dr. Shima Kamal Mohamed
 - **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.**
-  **This course consists of 11 units (modules)**

Unit Coordinator (s):

Unit	Principle Coordinator	Assistant coordinators
Unit (Module) 1: General Pediatric Medicine	Prof. Mohammad Mahrous	Dr. Naglaa Samy
Unit (Module) 2: Ped. Emergency	Dr. Yasser Gamal	Dr. Mahmoud Abdelfattah
Unit (Module) 3: Ped. gastroenterology & hepatology.	Prof. Nagla Hassan	Dr. Ashraf Elsaghir
Unit (Module) 4: Ped. Hematology & Onchology	Prof. Khaled Elsaieh	Dr. Mervat Amin
Unit (Module) 6: Nephrology and Urology	Dr. Ahlam Badawi	Dr. Asmaa Mohamed
Unit (Module) 7: Ped. Neurology & Psychology.	Prof. Gamal Asker	Prof. Emad Eldeen Hammad
Unit (Module) 8 : Ped. Pulmonology & TB.	Prof. Fatmah Abd Elfattah	Dr. Yasser Farouk
Unit (Module) 9: Ped. Cardiology.	Prof. Ghada Omar	Prof. Nagwa Ali Mohammad
Unit (Module) 10 : Ped. Endocrinology & Diabetes	Prof. Hanaa Abd Ellatif Mohammad	Prof. Kotb Abbas
Unit(Module) 11 :Ped. Intensive Care	Prof. Azza Eltiab	Prof. Maher Mokhtar
Unit(Module) 12: Neonatology and NICU	Prof. Nafisa Hassan	Dr. Mohamed Gamil

2. Course Aims

1. To enable candidates to master 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 and enabling the candidates of making appropriate referrals to a sub-specialist. Know, critically evaluate and use correct medical information and scientific evidence for patient care.
2. Demonstrate the ability to provide patient-centered care that is appropriate, compassionate, and effective for treatment of Pediatric health problems and the promotion of health and
3. Investigate and evaluate the patient care practices, appraise and assimilate scientific evidence, and use these processes to improve patient care.
4. Provide candidates with fundamental knowledge of Pediatric intensive care medicine as regards; mastering dealing with critically ill Pediatric patients, ICU equipments, techniques, indications, contraindications and training skills of different intensive care techniques.

Course intended learning outcome (ILOs)

A- Knowledge and understanding

Unit (Module) 1 General Pediatric Medicine

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> Infectious diseases : -Diagnostic Microbiology -The Microbiome and Pediatric Health -Fever -Infections in Immunocompromised Persons -Infection Associated With Medical Devices - Bacterial infections - Mycobacterial infections. - Spirochetal infections. - Mycoplasma infections. - chlamydial infections. - Rickettsial infections. - Mycotic infections. - Viral infections. - Protozoan diseases. - Helminthic diseases. Metabolic diseases : -An Approach to Inborn Errors of Metabolism - Defects in metabolism of amino acids.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination

- Defects in metabolism of lipids - Defects in metabolism of carbohydrates. - Mucopolysaccharidosis. -Mitochondrial Diseases - Disorders of purine and pyrimidine metabolism. -Hutchinson-Gilford Progeria Syndrome (Progeria) - Porphyrrias. - Hypoglycemia. Rheumatic diseases : - Evaluation of patient with suspected rheumatic diseases. - Juvenile rheumatoid arthritis. -Spondyloarthropathies. - post infectious arthritis. - systemic lupus erythematosus. - Juvenile dermatomyositis. - Scleroderma. -Raynaud phenomenon - Behcet disease. - Sjogren syndrome. - Familial Mediterranean fever. - Amyloidosis. -Sarcoidosis -Kawasaki disease - Vasculitis syndromes. -Miscellaneous conditions associated with arthritis -Post covid Multisystem inflammatory syndrome -children (MIS-C) Allergic diseases : -Diagnosis of allergic diseases - Allergic rhinitis. - Asthma. - Atopic dermatitis. - Urticaria, angioedema, anaphylaxis, and serum sickness. - Insect allergy.		
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- Ocular allergies. -Food allergy and adverse reactions to food - Adverse reactions to drugs Immunological diseases : - Child with suspected immune deficiency. - T-, B-, and NK cells. - Primary B- cell deficiency. - Primary T cell deficiency. - Combined T, and B cell disease. -Phagocytic system disorders -Complement disorders -Hematopoietic stem cell transplantation Bone & joint disorders - Metabolic bone disease -Leg length discrepancy -Arthrogryposis -Spine disorders -Skeletal dysplasia -Rehabilitation medicine Disorders of eye : -Disorders of vision -abnormalities of the lid and lacrimal glands -orbital abnormalities -Abnormalities of pupil and iris -Disorders of eye movements and alignment -Disorders of conjunctiva, cornea, lens and uveal tracts -Disorders of the retina, vitreous and optic nerve -Childhood glaucoma Disorders of ear: -Hearing loss -Congenital malformations -Diseases of the external ear		
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-Otitis media and it's complications Skin diseases :- - Diseases of neonates. - Cutaneous defects. - Ectodermal dysplasia -Vascular disorder - Cutaneous nevi - Hypopigmented and hyperpigmented lesions -Vesiculobullous disorders - Eczema -Photosensitivity -Diseases of the epidermis and keratenization -Diseases of the dermis and subcutaneous tissue - Disorders of sweat glands, hairs and nails - Disorders of the mucous membrane - Cutaneous infections : bacterial, fungal, viral and arthropod infestation -Acne -Tumors of the skin -Nutritional dermatosis Neoplastic diseases and tumors : - Leukemias and lymphomas. - Neuroblastoma. - Neoplasm of Kidney. - Soft tissue sarcomas. - Neoplasm of bone. -Brain tumors - Retinoblastoma. - Gonadal and germ cell neoplasm. - Neoplasm of liver and gastrointestinal tract. - Carcinomas. - Benign tumors. - Histocytosis syndromes. Environmental health hazards :		
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- Radiation injury. - Chemical pollutants. - Heavy metal intoxication. - Drugs, chemicals, and plants poisoning. - Nonbacterial food poisoning. -Envenomation Pediatric Drug Therapy - Pediatric Pharmacogenetics, Pharmacogenomics, and Pharmacoproteomics - Principles of Drug Therapy - Anesthesia and Perioperative Care - Procedural Sedation - Pediatric Pain Management - Poisoning - Complementary Therapies and Integrative Medicine <u>B. Mention the principles of the following:</u> Infectious diseases : - Preventive measures. Metabolic diseases : - An approach to inborn error of metabolism. Rheumatic diseases : - Treatment of rheumatic diseases. - Musculoskeletal pain syndromes. - Miscellaneous conditions associated with arthritis. Allergic diseases : - Allergy and immunologic basis of atopic disease. - Diagnosis and principles of treatment. - Adverse reactions to drugs. - Adverse reaction to foods. Immunological diseases : - Evaluation of immune system. - Child with suspected immune		
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deficiency. - Phagocytic system. - Complement system. - Bone marrow transplantation. Bone & joint disorders: - Orthopedic problems - Sports medicine. - Skeletal dysplasia. Disorders of eye : - Ocular examination - Abnormalities of refraction and accommodation disorders of ear: - Clinical manifestations - Inner ear problems Skin diseases :- - Evaluation of patient and principles of therapy. Neoplastic diseases and tumors : - Epidemiology and molecular pathogenesis - Principles of diagnosis and treatment. Environmental health hazards : - Envenomations		
C. <u>Mention basics of the following rare diseases and conditions:</u> - Rheumatic diseases. - Infection & inflammation.	Lectures	Written and oral examination
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to the conditions mentioned in A & B		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to General pediatric medicine		
E. Describe the basic ethical and medicolegal principles relevant to the General pediatric medicine.		

F. Describe the principles and measurements of quality assurance to ensure good clinical care in General pediatric medicine.		
G. Explain the ethical and scientific principles of medical General pediatric medicine research		
H. Explain the impact of common health problems in the field of General pediatric medicine on the society.		

Unit (Module) 2

Pediatric Emergencies

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> -Croup syndromes. - Acute Heart failure. - Systemic hypertension. - Convulsions. - Acute motor deficit. - Acute anemias. - Acute bleedings, vasculitis syndromes. - Envenomation with toxic encephalopathy or myocarditis. -Cardiac arrest -Shock -Syncope -Burn injuries - Anuria, acute renal failure. - Drowning and near drowning. - Hepatic cell failure.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -Clinical rotations -Service teaching	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination

B. <u>Mention the principles of the following:</u> - Dyspnea & Respiratory distress for DD. - Acute cyanosis. - Hypercyanotic spells. - Coma for DD. - Acute anemias. - Food and drug poisoning. - Acute abdomen for DD.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -Clinical rotations -Service teaching	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination
C. <u>Mention basics of the following rare diseases and conditions:</u> - CNS infections: meningitis, encephalitis. - Bronchial asthma - Pulmonary edema		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to conditions mentioned in A&B		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Emergencies.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Emergencies		
G.Explain the ethical and scientific principles of medical research in Pediatric Emergencies.		
H.Explain the impact of common health problems in the field of Pediatric Emergencies on the society.		

Unit (Module) 3
Pediatric Gastroenterology & Hepatology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> -Clinical Manifestations of Gastrointestinal Disease - Common lesions of the oral cavity - Malabsorptive disorders - Inflammatory bowel disease - GERD - congenital hypertrophic pyloric stenosis - Congenital anomalies of the anus, rectum and colon - Intestinal obstruction - GIT bleeding -Gastrointestinal manifestations of covid infection - Acute and chronic hepatitis - Fulminant hepatic failure - Cholestasis in infancy period	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination

- Liver cirrhosis - Portal hypertension -Exocrine pancreas disorders - Ascites and peritonitis		
B. <u>Mention the principles of :</u> - Acute and chronic diarrhea - Acute and chronic abdominal pain	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ exam at second half of second year & another one in the third year -Written and oral exam
C. <u>Mention basics of the following rare diseases and conditions:</u> - Acute and chronic hepatitis - Liver cirrhosis - Portal hypertension - Inflammatory bowel disease. - Functional abdominal obstruction - Paralytic ileus		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Gastroenterology & Hepatology.		

E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Gastroenterology & Hepatology.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Gastroenterology & Hepatology		
G. Explain the ethical and scientific principles of medical research in Pediatric Gastroenterology & Hepatology.		
H. Explain the impact of common health problems in the field of Pediatric Gastroenterology & Hepatology on the society.		

Unit (Module) 4 Pediatric Hematology

ILOs	Methods of teaching/ Learning	Methods of Evaluation

<u>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - Anemias of inadequate production. - Hemolytic anemias. - Polycythemia. - Pancytopenia. - Hemorrhagic and thrombotic disease. - Hematological malignancies. -Lymphadenopathy. - Splenomegaly. - Gaucher disease. - Bone marrow failure. -Different hematological presentations of covid infection	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -Clinical rotations -Service teaching	-OSCE at end of each year -log book & portfolio - One MCQ examination at second half of second year and another one in third year -Written & oral exam
<u>B. Mention the principles of :</u> - Blood and blood component transfusions	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -Clinical rotations -Service teaching	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination
<u>C. Mention basics of the following diseases and conditions:</u> - Development of hematopoietic system. - B.M. diseases. - Pediatric tumors. - Abnormalities of lymphatic system. - Splenic abnormalities as splenomegaly, hypospleneia, splenic trauma, and splenectomy. - BM transplantation		
<u>D. Explain the facts and principles of the relevant basic and clinically supportive</u>		

sciences related to Pediatric Hematology		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Hematology.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Hematology		
G. Explain the ethical and scientific principles of medical research		
H. Explain the impact of common health problems in the field of Pediatric Hematology on the society.		

Unit (Module) 5
Pediatric Nephrology & Urology

ILOs	Methods of teaching/ Learning	Methods of Evaluation

<u>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - Glomerular diseases. - Tubular disorders. - Toxic nephropathies. - Acute renal failure. - Chronic renal failure. - Congenital anomalies of the kidneys & urogenital system. - Urinary tract infections. - Vesicoureteric reflux - Obstructive uropathy. - Disorders of the urinary bladder. - Urinary lithiasis - Disorders of male child genital system. - Disorders of female child genital system	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination
<u>B. Mention the principles of:</u> - Conditions associated with hematuria. - Conditions associated with proteinuria. - Enuresis, Voiding disorders		
<u>C. Mention basics of the following rare diseases and conditions</u> - Small & large kidney. - Renal transplantation		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Nephrology, Urology& Gynecology		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Nephrology, Urology& Gynecology.		

F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Nephrology, Urology& Gynecology.		
G. Explain the ethical and scientific principles of medical research in Pediatric Nephrology, Urology gynecology.		
H. Explain the impact of common health problems in the field of Pediatric Nephrology, Urology & gynecology on the society.		

Unit (Module) 6
Pediatric Neurology & Psychology

<u>ILOs</u>	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - Congenital anomalies of central nervous system -Cerebral Palsy. - Motor deficit (hemiplegia,paraplegia, quadriplegia) - Epileptic syndromes & condition that mimic epilepsy. -Headache -Encephalopathies - Neurodegenerative and neurometabolic diseases. -Demyelinating disorders of the CNS -Pediatric stroke -CNS vasculitis -CNS infections - Intra cranial tumors. - Neurocutaneous syndromes. - Ataxia & movement disorders. - Spinal cord lesions. - Muscular dystrophies - Myopathies, myositis, & myotonia - Disorders of neuromuscular transmission. - Disorders of motor neurons. - Peripheral neuropathy. - Psychosomatic illness. -Rumination and pica -Eating disorders	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -Clinical rotations -Service teaching	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination

-Conduct disorders - Vegetative disorders. - Habit, Anxiety, & mood disorders. - Pervasive disorders & psychosis. - Behavioral disorders. -Learning and developmental disorders		
B. <u>Mention the principles of:</u> - Headache. - Enuresis. - Coma. - Neurodevelopmental dysfunctions in school aged children.	-Didactic (lectures, seminars, tutorial) -Clinical rounds	-OSCE at the end of each year -log book & portfolio - One MCQ

<u>C. Mention basics of the following rare diseases and conditions:</u> - Brain tumors - TB spine. - Psychosomatic illness. - Vegetative disorders. - Habit, Anxiety, & mood disorders. - Pervasive disorders & psychosis. - Behavioral disorders.	-Seminars -Clinical rotations -Service teaching	examination at the second half of the second year and another one in the third year -Written and oral examination
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Neurology & Psychology		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Neurology& Psychology		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Neurology& Psychology		
G. Explain the ethical and scientific principles of medical research		
H. Explain the impact of common health problems in the field of Pediatric Neurology & Psychology on the society.		

Unit (Module) 7
Pediatric Pulmonology & TB

ILOs	Methods of	Methods of Evaluation
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	teaching/ Learning	
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> -Congenital anomalies of respiratory tract - Croup, epiglottitis, laryngitis, and tracheitis. - Wheezing, bronchitis and bronchiolitis. - Emphysema and over inflation. - Aspiration syndromes. - Infective & non infective pneumonia . -Covid-19 infection - Bronchiectasis, pulmonary abscess - Pulmonary TB - Cystic fibrosis. - Interstitial lung diseases. - Pulmonary hemosiderosis. - Pulmonary embolism infarction and hemorrhage. - Atelectasis. - Pulmonary tumors. - Pleurisy, pleural effusions and empyema. - Neuromuscular & skeletal diseases affecting lung. -Primary ciliary dyskinesia -diffuse lung diseases of childhood -Immune and inflammatory lung disorders -Chronic respiratory insufficiency	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination
B. <u>Mention the principles of:</u> - Chronic or recurrent respiratory symptoms. - Tuberculosis - Pneumonia - Bronchial asthma and bronchiolitis.	Didactic; Lectures Clinical rounds Seminars	OSCE at the end of each year -logbook & portfolio

- Bronchiectasis, lung abscess	Clinical rotations (service teaching)	- One MCQ examination at 2 nd half of 2nd year and one in the third year -Written and oral exam
<u>C. Mention basics of the following rare diseases and conditions</u> - Congenital anomalies of the larynx, trachea, bronchi and lungs. - Inherited disorders of surfactant metabolism.		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Pulmonology & TB		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Pulmonology & TB		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Pulmonology & TB		
G. Explain the ethical and scientific principles of medical research		
H. Explain the impact of common health problems in the field of Pediatric Pulmonology & TB on the society.		

Unit (Module) 8

Pediatric Cardiology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> -Evaluation of the Cardiovascular System and the Child with A Heart Murmur - Congenital heart disease with left to right shunt. - Acyanotic congenital heart disease. - Cyanotic heart disease with increased pulmonary blood flow. - Cyanotic heart disease with restricted pulmonary blood flow. -Vascular malformations -Pulmonary hypertension -General principles of treatment of congenital heart disease - Pediatric cardiac dysrrhythmias. -Sudden death - Chronic valvular rheumatic heart disease. - Cardiomyopathy. - Systemic diseases with cardiac affection. - Infective endocarditis. - Pericardial effusion. -Cardiac tumors -Heart failure	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at 2nd half of 2nd year and one in the third year -Written and oral examination

-Pediatric heart-lung transplantation -Systemic hypertension		
B. <u>Mention the principles of</u> : - Cyanosis. - Rheumatic fever. - Heart failure. - Systemic hypertension. - Care of children with cardiac invasive operations in the perioperative period.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at 2nd half of 2 nd year and one in third year Written and oral exam
C. <u>Mention basics of the following rare diseases and conditions</u> - Persistent neonatal circulation - Pulmonary hypertension.		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Cardiology		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Cardiology		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Cardiology		
G. Explain the ethical and scientific principles of medical research		
H. Explain the impact of common health problems in the field of Pediatric Cardiology on the society.		

Unit (Module) 9

Pediatric Endocrinology & Diabetes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
<u>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - Diabetes mellitus. - Disorders of hypothalamus. - Diabetes insipidus - Hypo- and hyperpituitarism. - Hypo- and hyperthyroidism. - Hypo- and hyperparathyroidism. - Hypo- and hyperadrenocorticism. - Delayed and precocious puberty. - Abnormalities of gonads. - Intersex -Autoimmune polyglandular syndromes -Multiple endocrine neoplasia syndromes	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at 2nd half of 2nd year and one in third year written & oral exam

<u>B. Mention the principles of:</u> - Short & tall stature - Obesity. - Polyurea and polydipsia. - Hypo- and hyperglycemia. - Hypo- and hypercalcemia - Ambiguous genitalia	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at 2nd half of 2nd year and one in third year written & oral exam
<u>C. Mention basics of the following:</u> Pathologic details of:- - Diseases of Endocrine glands.		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Endocrinology.		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Endocrinology.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Endocrinology.		
G. Explain the ethical and scientific principles of medical research.		
H. Explain the impact of common health problems in the field of Pediatric Endocrinology on the society.		

Unit (Module) 10
Pediatric Intensive care

ILOs	Methods of teaching/ learning	Methods of evaluation
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<u>A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - Status epilepticus. - Status asthmaticus. - Encephalopathy. - Cardiogenic shock. - Septic shock. - C.N.S strokes. - Hepatic encephalopathy. - Cardiac dysrhythmia. - Metabolic and acid base disorders. - Severe cases of envenomation and intoxication. - Diabetic ketoacidosis. - Increase intracranial tension	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral exam
<u>B. Mention the principles of:</u> - Respiratory failure. -Cardiac arrest -Shock -Syncope -Drowning -Burn injuries - Hematemesis. - Cardiac tamponade. - Metabolic and acid base disorders. - Hypertensive encephalopathy. - Increase intracranial pressure.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
<u>C. Mention the basics of the following rare diseases and conditions</u> - Septic Shock & cardiogenic shock. - Respiratory failure & ventilation - CNS infections. - Cardiac arrhythmia.		-Written and oral exam

- Heart failure - Hypertension - Hematemesis and liver cirrhosis.		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Pediatric Intensive Care.		
E. Describe the basic ethical and medicolegal principles relevant to the Pediatric Intensive Care.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Pediatric Intensive Care.		
G. Explain the ethical and scientific principles of medical research.		
H. Explain the impact of common health problems in the field of Pediatric Intensive Care on the society.		

Unit (Module) 11
Neonatology & NICU

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions:</u> - High risk infants (multiple gestations, prematurity, IUGR, post-term, large for gestational age). - Clinical manifestations of diseases in the neonatal period. - Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, air leak syndrome, diaphragmatic hernia). - Neonatal resuscitation - Jaundice and kernicterus. - Necrotizing enterocolitis. - Anemia, hemolytic disease of the newborn, - Hemorrhagic disease of the newborn, polycythemia, thrombocytopenia). - Hypoglycemia. - Infant of diabetic mother. - Neonatal sepsis. - Hypoxic ischemic encephalopathy. - Neonatal seizures. - Abstinence syndromes	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination

B. <u>Mention the principles of</u> : - Routine delivery room care. - Nursery care. - Infant transport. - Clinical manifestations of diseases in the neonatal period.	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Written and oral examination
C. <u>Mention basics of the following rare diseases and conditions</u>: - Extreme prematurity - Small for gestational age. - Major congenital anomalies. - Metabolic disturbances in neonates. - Surgical emergencies in neonatal period.		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Neonatology.		
E. Describe the basic ethical and medicolegal principles relevant to the Neonatology.		
F. Describe the principles and measurements of quality assurance to ensure good clinical care in Neonatology.		
G. Explain the ethical and scientific principles of medical research		
H. Explain the impact of common health problems in the field of Neonatology on the society.		

B-Intellectual outcomes of the whole Course

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Pediatrics	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Apply the basic and clinically supportive sciences, which are appropriate to the Pediatrics related problem.		
C. Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical situation related to Pediatrics.		
D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governs: Crdiopulmonary resuscitation. Mortality in the ward.		
G. Plain quality improvement activities in the field of medical education and clinical practice in Pediatrics.		
H. Create and innovate plans, systems, and other issues for improvement of performance in Pediatrics.		
I. Present and defend his / her data in front of a panel of experts.		
J. Formulate management plans and alternative decisions in different situations in the field of Pediatrics.		

C-Practical skills (Patient Care)

Unit (Module) 1 General Pediatric Medicine

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to General Pediatrics.</u>	Didactic; (Lectures Seminars tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - Lab tests: CBC, acute phase reactants, ANA, Rheumatoid factor, Levels of total complement (CH ₅₀), C3, and C4. Blood PH, Serum ammonia, Blood glucose, liver function, liver biopsy - Cultures for blood, urine, CSF, throat swap, stool, sputum - Special serological tests of infectious diseases - Imaging studies: X ray, bone scans, MRI, Ct brain or abdomen - Ocular examination - Chromosomal study	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior	- Procedure presentation - Logbook - Chick list

- Serum Ca, P, Na, K, Mg, and alkaline phosphatase - Immunologic studies	staff	
C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - Lab tests: CBC, acute phase reactants, ANA, Rheumatoid factor, Levels of total complement (CH₅₀), C3, and C4. Blood PH, Serum electrolytes, Serum ammonia, Blood glucose, liver function, liver biopsy - Cultures for blood, urine, CSF, throat swap, stool, sputum - Special serological tests of infectious diseases - Imaging studies: X ray, bone scans, Sonography, MRI, Ct	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Lumbar puncture - Abdominal ultrasonography - Swabs - Otoscope - Fundus examination	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures:</u> proper treatment for conditions	-Observation -Post graduate teaching	- Procedure presentation - Log book - Chick list

mentioned in A	-Hand on workshops	
F. <u>Perform the following non invasive and invasive therapeutic procedures:</u> - Proper drug administration - IV fluid - Blood transfusion - Dressing	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Logbook - Chick list
G. Develop and carry out patient management plans for the following problems: - PUO - Autoimmune diseases - Immune deficiency diseases - Allergic diseases: asthma, atopy, urtecaria - Metabolic diseases: galactosemia, phenyleketonurea, lactic acidosis, hyperammonnenemia - radiation hazards - Environmental pollution	Clinical round with senior staff	
H. Counsel and educate patients and their family about : - Infectious diseases - Rheumatic diseases - Allergic diseases - Genetic diseases - Metabolic diseases	-Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for related conditions in A.	-Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions - Infectious diseases - Allergic diseases	Clinical round with senior staff	

- Immunologic diseases		
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following - Management protocols of various conditions saved on unit computers. - International guidelines on the internet	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 2

Pediatric Emergencies

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose</u> different conditions related to Pediatric Emergency.	-Didactic; (Lectures, Seminars, Tutorial) -Clinical rounds -Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - 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	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list

- EEG - Bone marrow examination		
<u>C. Interpret the following non invasive and invasive diagnostic procedures:</u> - CBC - ECG - CSF examination - Blood gas analysis - BM report	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
<u>D. Perform the following non invasive and invasive diagnostic procedures:</u> - ECG - Lumber puncture - Gastric lavage - Peritoneal tap - Pleural fluid tap	-Perform under supervision of senior staff	
<u>E. Prescribe the following non invasive and invasive therapeutic procedures:</u> - Proper treatment of conditions mentioned in A	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
<u>F. Perform the following non invasive and invasive therapeutic procedures:</u> - Cardiopulmonary resuscitation - O2 inhalation - Nasogastric intubation - Rectal intubation - Urinary catheterization	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list

G. Develop & Carry out patient management plans for the following problems <u>List</u>: - Respiratory distress - Acute convulsions - CNS infections - Acute anemia - Bleeding tendencies - Envenomations - Food and drug poisoning	-Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Prevention of acute hemolytic crisis - Care of convulsing child - Lifestyle aspects management of asthmatic child - Lifestyle aspects management of hemophilic child	-Clinical round with senior staff	
I. Provide health care services aimed at preventing the following conditions: -Bronchial asthma -Febrile convulsions -Acute hemolytic crisis	-Clinical round with senior staff	
J. Use information technology to support patient care decisions and patient education for the above mentioned conditions: - Management protocols of various conditions saved on unit computers. - International guidelines on the internet	-Clinical round with senior staff	
K. Work with health care professionals, including those from other	-Clinical round with senior staff	

disciplines, to provide patient-focused care for the following: - Foreign body inhalation - Acute intestinal obstruction - Increased intracranial pressure		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 3 Pediatric Gastroenterology & Hepatology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose</u> different conditions related to Pediatric Gastroenterology & Hepatology	-Didactic (lectures, seminars, tutorial) -Clinical rounds - Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Clinical exam
B. <u>Order the following non invasive and invasive diagnostic procedures</u> : - Lab investigations as Na, K, Ca, liver and Kidney function tests - Blood gases analysis - Erect abdominal x ray - Barium swallow - Barium meal - Barium full through and enema - Upper and lower GIT endoscopy	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list

C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - Abdominal ultra-sonography - Paracentesis - Liver biopsy	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Sampling for blood gases analysis - Abdominal ultra-sonography - Paracentesis - Liver biopsy	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures:</u> - Proper treatment of conditions mentioned in A	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
F. <u>Perform the following non invasive and invasive therapeutic procedures:</u> - IV fluid therapy - Nasogastric and rectal intubation - Therapeutic peritoneal tap	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list

G. Develop & carry out patient management plans for the following problems: - Chronic diarrhea and malabsorption - Acute and chronic hepatitis - Compensated and decompensated Liver cirrhosis - Upper and lower GIT bleeding - Inflammatory bowel diseases	-Clinical round with senior staff	
H. Counsel and educate patients and their families about :- - Prevention of diarrhea and dehydration - Prevention of hepatitis - Warning signs of dehydration - Prevention of Protein energy malnutrition - Value of vaccination against some diarrheal diseases and hepatitis A & B - Vomiting & GERD	-Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Gastroenterology & Hepatology related conditions	-Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Infectious diarrheal diseases - Protein energy malnutrition - Infectious hepatitis A, B, C, & TB - Parasitic infestation	-Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following:	-Clinical round with senior staff	

- Surgical conditions, parenteral diarrhea (ENT), renal and urological conditions, ICU, blood bank and bacteriological & pathological laboratories.		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 4 Pediatric Hematology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
<u>A. Take history, examine and clinically diagnose different conditions:</u> - Anemias - Leucocyte abnormalities - Bleeding and coagulation disorders - Hematological malignancies - Solid tumors - Lymphadenopathy - Splenomegaly - Hematological disorders of the newborn - Gaucher disease - Blood transfusions - Bone marrow failure	Didactic; (Lectures, Seminars Tutorial) Clinical rounds Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
<u>B. Order the following non invasive and invasive diagnostic procedures:</u> - Laboratory tests: CBC, Iron status, coagulation tests: PT,PC, PTT, TT, Platelet functions. - Coagulation factors assay - Investigations of hemolysis: hemoglobin electrophoresis, sickling, osmotic fragility, G6PD, Coombs test - B. M. examination - Bone scan - CT, MRI	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list

C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - Laboratory tests: CBC, Iron status, coagulation tests: PT,PC, PTT, TT, Platelet functions - Coagulation factors assay - Investigations of hemolysis: hemoglobin electrophoresis, sickling, osmotic fragility, G6PD, Coombs test - BM examination	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Blood sampling .	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures:-</u> - Proper treatment of conditions mentioned in A	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops -Perform under supervision of	- Procedure presentation - Logbook - Chick list

	senior staff	
<u>F. Perform the following non invasive and invasive therapeutic procedures</u> - Drug therapy - Blood & blood products transfusion - Iron chelation therapy - IV Gamma globulin infusion - Coagulation factors infusion - Exchange transfusion		
G. Develop patient management plans for the following problems - Nutritional anemia - Hemolytic anemias - Coagulation disorders - Platelets disorders - Bone marrow failure - Hematological emergencies	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Logbook - Chick list
H. Counsel and educate patients and their family about - Nutritional anemia - Hemolytic anemias - Coagulation disorders - Platelets disorders - Bone marrow failure - Hematological emergencies	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Hematology related conditions. 1- Management protocols of various diseases saved on unit computers. 2- International guidelines and internet.	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Iron deficiency anemia - bleeding disorders		

K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - Thalassemia - Hemophilia	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 5
Pediatric Nephrology & Urology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose</u> different conditions related to Pediatric Nephrology, Urology & Gynecology Medicine.	-Didactic (lectures, seminars, tutorial) -Clinical rounds Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Clinical exam
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - 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 -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list

<u>C. Interpret the following non invasive and invasive diagnostic procedures:</u> - Paracentesis - Femoral catheter	-Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
<u>D. Perform the following non invasive and invasive diagnostic procedures:</u> - Peritoneal tap	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
<u>E. Prescribe the following non invasive and invasive therapeutic procedures:</u> - Peritoneal dialysis - Hemodialysis	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
<u>F. Perform the following non invasive and invasive therapeutic procedures:</u> - Peritoneal dialysis - Hemodialysis - IV fluid, blood transfusion	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list

G. Develop and carry out patient management plans for the following problems: - Nephrotic syndrome - Glomerulonephritis - Acute renal failure - Chronic renal failure - Vesicoureteric reflux - Urinary tract infections - Obstructive uropathy	Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Prevention of urinary tract infection - Value of renal replacement of renal failure - Warning signs of chronic renal failure - 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	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Nephrology & Urology related conditions.	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Infectious hepatitis A, B, C - Fixed or intermittent catheterization in vesicoureteric reflux to prevent renal impairment - Antibiotic coverage for urinary tract infection and follow up for 2years to prevent renal scar		

- Control diet for renal stone passer - Control of diabetes and hypertension to avoid nephropathy - Patients with congenital anomalies of the spinal cord (ex. Meningomyelocele) should be followed in outpatient clinic to avoid complication of neurogenic bladder	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - Obstructive uropathy - Vesicoureteric reflux - Chronic renal failure - Acute renal failure - Infectious hepatitis B, C		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 6
Pediatric Neurology & Psychology

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to Pediatric Neurology & Psychology.</u>	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - Skull X-rays - CT brain - MRI brain - EEG, EMG, NCV	Didactic; Lectures Clinical rounds Seminars Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - CSF examination - CT & MRI brain - EEG, NCV & EMG		OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year

D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Lumber puncture - Cranial Sonography - NCV & EMG	Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
E. <u>Prescribe the following non-invasive and invasive therapeutic procedures:</u> - Proper treatment of conditions mentioned in A.	Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Logbook - Chick list
F. <u>Perform the following non invasive and invasive therapeutic procedures:-</u> - Control of ongoing fit - Care of bed ridden patient		
G. Develop and carry out patient management plans for the following problems : - Epilepsy - febrile convulsion - Headache - Enuresis - Cerebral palsy	Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Febrile convulsions - Meningococcal, pneumococcal, H influenza vaccine - Home management of convulsing child - Dealing with CP as regard feeding exercises - Breath holding spells	Clinical round with senior staff	

I. Use information technology to support patient care decisions and patient education for Pediatric Neurology related conditions.	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions : - Febrile convulsion. - Bed sores in bed ridden patients	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - Epilepsy, headache, enuresis, febrile convulsion, encephalitis, meningitis, - cerebral palsy and increasing ICT	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 7
Pediatric Pulmonology & TB

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to Pediatric Pulmonology & TB</u>	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year and another one in the third year -Clinical exam
B. <u>Order the following non invasive and invasive diagnostic procedures:-</u> - Chest X-rays, chest ultrasonography & CT - Lab tests: CBC, acute phase reactants, blood culture - Diagnostic laryngoscope & bronchoscope - Lung biopsy	-Clinical round with senior staff -Observation -Postgraduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list

C. <u>Interpret the following non invasive and invasive diagnostic procedures:-</u> - Tuberculin test - Blood gases - Pulmonary function tests - Diagnostic thoracocentesis	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops --Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Pulmonary function tests - Diagnostic thoracocentesis	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops --Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures:</u> Proper drug therapy for cases mentioned in A.	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
F. <u>Perform the following non invasive and invasive therapeutic procedures:</u> - O2 therapy		

- Thoracocentesis - Nebulizer usage - Resuscitation technique		
G. Develop and carry out patient management plans for the following problems : - Wheezing, bronchitis and bronchiolitis - Emphysema and over inflation - Pneumonia (viral or bacterial) - Bronchiectasis, pulmonary abscess - Tuberculosis - Cystic fibrosis - Interstitial lung diseases	Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Prevention of tuberculosis - Prevention of exposure to allergic inhalant substances - Treatment of pulmonary TB - Prevention of pneumonia, bronchial asthma, and other respiratory diseases	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Pulmonology & TB related conditions: - Management protocols of various conditions saved on unit computers - International guidelines on the internet	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Upper and lower respiratory infections - Bronchial asthma - Pulmonary TB	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following:	Clinical round with senior staff	

- Bronchial asthma - Tuberculosis - Apparent life threatening event - Chronic or recurrent respiratory symptoms - Foreign bodies of the airway - Aspiration syndrome - Bronchiectasis, pulmonary abscess		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 8

Pediatric Cardiology

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to Pediatric Cardiology.</u>	-Didactic; (Lectures, Seminars Tutorial) -Clinical rounds -Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - Chest X-rays - Echocardiography report - Diagnostic Pericardiocentesis - Lab tests: CBC, acute phase reactants, evidence of streptococcal infection, Blood culture, cardiac enzymes	-Clinical round with senior staff -Observation -Postgraduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - Blood pressure measurement at different sites	-Clinical round with senior staff -Observation	- Procedure presentation - Logbook - Chick list

- ECG	-Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Blood pressure measurement at different sites - ECG	-Clinical round with senior staff -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures.:</u> - Proper treatment of conditions mentioned in A	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
F. <u>Perform the following non invasive and invasive therapeutic procedures:</u> - Digitalization - Anti-dysrrhythmia drugs and maneuvers - Pericardiocentesis		
G. Develop and carry out patient management plans for the following problems : - Prevention of rheumatic fever - Treatment of rheumatic fever - Prevention of infective endocarditis - Treatment of systemic hypertension	Clinical round with senior staff	

H. Counsel and educate patients and their family about: - Prevention of infective endocarditis - Prevention of rheumatic fever - Lifestyle aspects management of heart failure and systemic hypertension - Indication & timing of intervention for common congenital and acquired cardiac defects (ASD, VSD, AVC defect, TF, valvular diseases)	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Cardiology related conditions: - Management protocols of various conditions saved on unit computers. - International guidelines on the internet.	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Rheumatic fever - Infective endocarditis	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - Congenital heart disease - Rheumatic heart disease	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 9
Pediatric Endocrinology & Diabetes

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to Pediatric Endocrinology.</u>	-Didactic; (Lectures, Seminars Tutorial) -Clinical rounds -Clinical rotations (service teaching)	OSCE at the end of each year logbook & portfolio One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures:</u> - Lab tests: Blood glucose level, serum calcium, sodium, potassium - Bone aging - Fundus examination - Radiology: CT and MRI (brain, abdomen). - Hormonal assay: growth hormone, TSH, T3, T4, Insulin, cortisol, ADH - Chromosomal study - Radioimmunoassay	-Clinical round with senior staff -Observation Postgraduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list

C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - Bone aging - Fundus examination - Radiology: CT and MRI (brain, abdomen) - Hormonal assay - Glucose level in urine and blood	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Bone aging - Fundus examination	-Clinical round with senior staff -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures.:</u> - Proper treatment of conditions mentioned in A.	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
F. <u>Perform the following non invasive and invasive therapeutic procedures:</u>		

- IV fluid and electrolyte correction - Hormonal replacement		
G. Develop and carry out patient management plans for the following problems: - Diabetes mellitus - Hypothyroidism - Diabetes Insipidus	Clinical round with senior staff	
H. Counsel and educate patients and their family about Life style of diabetic patients.	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Endocrinology related conditions.: - Management protocols of various conditions saved on unit computers. - International guidelines on the internet	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - Hypoglycemia - Hyperglycemia	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - Diabetes mellitus	Clinical round with senior staff	
I. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 10
Pediatric Intensive care

ILOs	Methods of teaching/ learning	Methods of evaluation
<u>A. Take history, examine and clinically diagnose different conditions related to Pediatric Intensive Care Medicine.</u>	Didactic; (Lectures, Seminars, Tutorial) Clinical rounds Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
<u>B. Order the following non invasive and invasive diagnostic procedures</u> - X-rays, CT, & MRI - Arterial blood gases - Echocardiography - Diagnostic Pericardiocentesis - Lab tests: CBC, acute phase reactants, evidence of streptococcal infection, Blood culture, cardiac enzymes, CSF, blood glucose, renal function tests, urine analysis, serum electrolytes and coagulation profile	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
<u>C. Interpret the following non invasive and invasive diagnostic procedures :</u> - ECG - Measuring oxygen saturation - Blood glucose	-Clinical round with senior staff -Observation -Post graduate	- Procedure presentation - Logbook - Chick list

	teaching -Hand on workshops -Perform under supervision of senior staff	
<u>D. Perform the following non invasive and invasive diagnostic procedures:</u> - ECG - Measuring oxygen saturation - blood glucose - Thoraco/ abdomino centesis and intercostal tube insertion - Lumbar puncture		
<u>E. Prescribe the following non invasive and invasive therapeutic procedures:</u> - 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-dysrrhythmia drugs and maneuvers - Anti shock measures - Partial exchange transfusion - Chest physiotherapy	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops -Perform under supervision of senior	- Procedure presentation - Logbook - Chick list
<u>F. Perform the following non invasive and invasive therapeutic procedures:</u> - Basic life support - Advanced life support - Defibrillator - Oxygen therapy - Arterial puncture and arterial line placement	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Logbook - Chick list

- Veni puncture and intravenous catheter placement - Placement of intraosseous line - Obtain consent from the family - Bag & mask ventilation - Endotracheal intubation - Anti-dysrrhythmia maneuvers - Anti shock measures. - Blood and blood products transfusion - Partial exchange transfusion - Chest physiotherapy		
G. Develop and carry out patient management plans for the following problems : - Apnea - Cardiorespiratory arrest - Status epilepticus - Shock - Arrhythmia - Status asthmaticus - Metabolic and endocrinal encephalopathy - Hypertensive encephalopathy - DKA - ARDS - Hematological emergencies - Intoxication	Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Nutritional aspect and glycemic control of diabetic children - Prophylactic measures in communicable diseases - Lifestyle aspects management of heart failure and systemic hypertension - Allergic bronchial asthma and the uses of inhaled medications - Insulin reactions	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Pediatric Intensive Care related conditions:	Clinical round with senior staff	

- Management protocols of various conditions saved on unit computers. - International guidelines on the internet		
J. Provide health care services aimed at preventing the following conditions: - Insulin reactions - infectious diseases - DKA - convulsions - CNS stroke - Vaccination for high risk group - Bleeding disorders	Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - convulsions - Acute flaccid paralysis - Aspiration syndrome - Envenomation and intoxication - Diabetic patients - Heart failure	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

Unit (Module) 11
Pediatric Neonatology & NICU

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. <u>Take history, examine and clinically diagnose different conditions related to Neonatology & NICU.</u>	-Didactic; (Lectures, Seminars, Tutorials) -Clinical rounds -Clinical rotations (service teaching)	OSCE at the end of each year -logbook & portfolio - One MCQ examination at the second half of the second year and another one in the third year
B. <u>Order the following non invasive and invasive diagnostic procedures :</u> - Laboratory: CBC, liver function tests, kidney, CSF, cultures (blood, urine, CSF), drug serum level, aminogram - Arterial blood gas - Imaging: X-rays (chest, abdomen, bone, ultrasonography (abdominal), dye studies, CT, MRI - EEG - Echocardiography report	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list

C. <u>Interpret the following non invasive and invasive diagnostic procedures:</u> - 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	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
D. <u>Perform the following non invasive and invasive diagnostic procedures:</u> - Pulse oximetry - transcranial ultrasonography - Lumbar puncture	-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Logbook - Chick list
E. <u>Prescribe the following non invasive and invasive therapeutic procedures :</u> - Proper treatment of conditions mentioned in A	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Log book - Chick list
F.<u>Perform the following non invasive and invasive therapeutic procedures:</u> - Resuscitation - Exchange transfusion - Umbilical vessels catheterizatio - I.V line & sampling transfer - Parental infusion / alimentation	-Observation -Post graduate teaching -Hand on workshops	- Procedure presentation - Logbook - Chick list

- Endotracheal intubation& suctioning - Ventillation -Cerebral hypothermia		
G. Develop and Carry out patient management plans for common conditions related to Neonatology: - Respiratory disorders (apnea, RDS, TTN, aspiration pneumonia, meconium aspiration syndrome, Jaundice and kernicterus. - Meconium ileus - Anemia, hemolytic disease of the newborn, hemorrhage in the newborn, polycythemia, thrombocytopenia - Metabolic disorders - Hypoglycemia, IDM - Neonatal sepsis & infections - HIE and neonatal seizures	Clinical round with senior staff	
H. Counsel and educate patients and their family about: - Prevention of prematurity, RDS, IDM, and HIE - Care of preterm infants	Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Neonatology related conditions.: - Management protocols of various conditions saved on unit computers. - International guidelines on the internet	Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: - IDM, RDS, HIE, neonatal infection - Prematurity	Clinical round with senior staff	

K. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following: - RDS, IDM, HIE, prematurity, hypoglycemia, parenteral infection, congenital malformation	Clinical round with senior staff	
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

D-General Skills of the whole course

Practice-Based Learning and Improvement

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology in the common problems (plain and conduct audit cycles)) in conditions mentioned in A.A and A.C	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	- Global rating -Procedure & case presentation -Log book & Portfolios - Chick list
B. Locate, appraises, and assimilates evidence from scientific studies related to patients' health problems.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	- Global rating -Procedure & case presentation -Log book &

		Portfolios - Chick list
C. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness		
D. Use information technology to manage information, access on-line medical information; and support their own education		
E. Lead the learning of students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ Learning	Methods of Evaluation
F. Create and sustain a therapeutic and ethically sound relationship with patients	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	- Global rating -Procedure & case presentation -Log book & Portfolios - Chick list
G. Perform the following oral communications: Interpretation of results of different investigations related to the pediatric		

conditions and discussion of different therapeutic options.		
H. Fill the following reports: - Case sheet taking - Follow up cards - Referral sheets - Death report		
I. Work effectively with others as a member or leader of a health care team e.g. - Complicated pediatric diseases		

Professionalism

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

Systems-Based Practice

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

4. Course contents (topics/modules/rotation)
Course Matrix

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skill	General Skills
Unit (Module) 1 : General Pediatric Medicine				
Infectious diseases				
-Diagnostic Microbiology	A,C-H	A-I	A-L	A-P
-The Microbiome and Pediatric Health	A,C-H	A-I	A-L	A-P
-Fever -Infections in Immunocompromised Persons	A,C-H	A-I	A-F,I-L	A-P
-Infection Associated With Medical Devices	A,C-H	A-I	A-L	A-P
Bacterial infections	A,C-H	A-I	A-L	A-P
Mycobacterial infections	A,C-H	A-I	A-L	A-P
Spirochetal infections	A,C-H	A-I	A-F,I-L	A-P
Mycoplasma infections	A,C-H	A-I	A-F,I-L	A-P
chlamydial infections	A,C-H	A-I	A-F,I-L	A-P
Richettsial infections	A,C-H	A-I	A-F,I-L	A-P
Mycotic infections	A,C-H	A-I	A-F,I-L	A-P
Viral infections	A,C-H	A-I	A-F,I-L	A-P
Protozoan diseases	A,C-H	A-I	A-F,I-L	A-P
Helminthic diseases	A,C-H	A-I	A-F,I-L	A-P
Preventive measures	B,C-H	A-I	A	B-G,J-P
Metabolic diseases				
-An Approach to Inborn Errors of Metabolism	A,D-H	A-I	A-F,G-L	B-G,J-P

Defects in metabolism of amino acids	A,D-H	A-I	A-F,G-L	B-G,J-P
Defects in metabolism of lipids	A,D-H	A-I	A-F,G-L	B-G,J-P
Defects in metabolism of carbohydrates	A,D-H	A-I	A-F,G-L	B-G,J-P
Mucopolysaccharidosis	A,D-H	A-I	A-F,G-L	A-P
-Mitochondrial Diseases	A,D-H	A-I	A-F,G-L	A-P
Disorders of purine and pyrimidine metabolism	A,D-H	A-I	A-F,G-L	B-G,J-P
-Hutchinson-Gilford Progeria Syndrome (Progeria)	A,D-H	A-I	A-F,G-L	A-P
Porphyrias	A,D-H	A-I	A-F,G-L	A-P
Hypoglycemia	A,D-H	A-I	A-F,G-L	A-P
An approach to inborn error of metabolism	B,D-H	A-I	A	B-G,J-P
Rheumatic diseases				
Evaluation of patient with suspected rheumatic diseases	A,C-H	A-I	A-F,I-L	B-G,J-P
Juvenile rheumatoid arthritis	A,C-H	A-I	A-G,I-L	A-P
Spondyloarthropathies	A,C-H	A-I	A-F,I-L	A-P
Post infectious arthritis	A,C-H	A-I	A-F,I-L	A-P
Systemic lupus erythematosus	A,C-H	A-I	A-F,I-L	A-P
Juvenile dermatomyositis	A,C-H	A-I	A-F,I-L	A-P
Scleroderma	A,C-H	A-I	A-F,I-L	A-P
Raynaud phenomenon	A,C-H	A-I	A-F,I-L	A-P
Behcet disease	A,C-H	A-I	A-F,I-L	A-P
Sjogren syndrome	A,C-H	A-I	A-F,I-L	A-P
Familial Mediterranean fever	A,C-H	A-I	A-F,I-L	A-P
Amyloidosis	A,C-H	A-I	A-F,I-L	A-P

-Sarcoidosis	A,C-H	A-I	A-F,I-L	A-P
-Kawasaki disease	A,C-H	A-I	A-F,I-L	A-P
Vasculitis syndromes	A,C-H	A-I	A-F,I-L	A-P
Treatment of rheumatic diseases	B-H	A-I	A-F,I-L	B-G,J-P
Musculoskeletal pain syndromes	B-H	A-I	A-F,I-L	B-G,J-P
Miscellaneous conditions associated with arthritis	B-H	A-I	A-F,I-L	B-G,J-P
Post covid Multisystem inflammatory syndrome - children (MIS-C)	A,C-H	A-I	A-F,I-L	A-P
Allergic diseases				
-Diagnosis of allergic diseases	A,D-H	A-I	A-L	A-P
Allergic rhinitis	A,D-H	A-I	A-L	A-P
Asthma	A,D-H	A-I	A-L	A-P
Atopic dermatitis	A,D-H	A-I	A-L	A-P
Urticaria, angioedema, anaphylaxis, and serum sickness	A,D-H	A-I	A-F,I-L	A-P
Insect allergy	A,D-H	A-I	A-F,I-L	B-G,J-P
Ocular allergies	A,D-H	A-I	A-F,I-L	B-G,J-P
Food allergy and adverse reactions to food	A,D-H	A-I	A-F,I-L	B-G,J-P
Allergy and immunologic basis of atopic disease	B,D-H	A-I	A-F,I-L	B-G,J-P
Diagnosis and principles of treatment	B,D-H	A-I	A-F,I-L	B-G,J-P
Adverse reactions to drugs	B,D-H	A-I	A-F,I-L	B-G,J-P
Adverse reaction to foods	B,D-H	A-I	A-F,I-L	B-G,J-P
Immunological diseases				

Child with suspected immune deficiency	A,D-H	A-I	A-F	B-G,J-P
T-, B-, and NK cells	A,D-H	A-I	A-I	B-G,J-P
Primary B- cell deficiency	A,D-H	A-I	A-I	A-P
Primary T cell deficiency	A,D-H	A-I	A-I	A-P
Combined T, and B cell diseases.	B,D-H	A-I	A-I	A-P
-Phagocytic system disorders -Complement disorders -Hematopoietic stem cell transplantation	A,D-H	A-I	A-I	B-G,J-P
Allergy and immunologic basis of atopic disease	B,D-H	A-I	A	B-G,J-P
Diagnosis and principles of treatment	B,D-H	A-I	A-F	B-G,J-P
Bone& joint disorders				
Metabolic bone disease	A ,D-H	A-I	A-F,I-L	B-G,J-P
Orthopedic problems	B,D-H	A-I	A-F,I-L	B-G,J-P
Leg length discrepancy -Arthrogryposis -Spine disorders -Skeletal dysplasia -Rehabilitation medicine	A ,D-H	A-I	A-F	A-P
Sports medicine	B,D-H	A-I	A-F,I-L	B-G,J-P
Skeletal dysplasia	B,D-H	A-I	A-L	B-G,J-P
Disorders of eye				
Disorders of vision	A,D-H	A-I	A-F,I-L	B-G,J-P
abnormalities of the lid and lacrimal glands	A,D-H	A-I	A-F,I-L	B-G,J-P
orbital abnormalities	A,D-H	A-I	A-F,I-L	B-G,J-P
Abnormalities of pupil and iris	A,D-H	A-I	A-F,I-L	B-G,J-P
Disorders of eye movements and alignment	A,D-H	A-I	A-F,I-L	B-G,J-P

Disorders of conjunctiva, cornea, lens & uveal tracts	A,D-H	A-I	A-F,I-L	B-G,J-P
Disorders of the retina, vitreous and optic nerve	A,D-H	A-I	A-F,I-L	B-G,J-P
Childhood glaucoma	A,D-H	A-I	A-F,I-L	B-G,J-P
Ocular examination	B,D-H	A-I	A-F	B-G,J-P
Abnormalities of refraction and accommodation	B,D-D	A-I	A-F	B-G,J-P
Disorders of ear				
Hearing loss	A,D-H	A-I	A-F	B-G,J-P
Congenital malformations	A,D-H	A-I	A-F,I-L	B-G,J-P
Diseases of the external ear	A,D-H	A-I	A-F,I-L	B-G,J-P
Otitis media and it's complications	A,D-H	A-I	A-F,I-L	B-G,J-P
Inner ear problems	B,D-H	A-I	A-F,I-L	B-G,J-P
Skin diseases				
Diseases of neonates	A,D-H	A-I	A-F,I-L	B-G,J-P
Cutaneous defects	A,D-H	A-I	A-F,I-L	B-G,J-P
Ectodermal dysplasia	A,D-H	A-I	A-F,I-L	A-P
Vascular disorder	A,D-H	A-I	A-F,I-L	A-P
Gutaneous nevi	A,D-H	A-I	A-F,I-L	A-P
Hypopigmented and hyperpigmented lesions	A,D-H	A-I	A-F,I-L	A-P
Vesiculobullous disorders	A,D-H	A-I	A-F,I-L	A-P
Eczema	A,D-H	A-I	A-F,I-L	A-P
Photosensitivity	A,D-H	A-I	A-F,I-L	A-P
Diseases of the epidermis and keratinization	A,D-H	A-I	A-F,I-L	A-P
Diseases of the dermis and subcutaneous tissue	A,D-H	A-I	A-F,I-L	A-P
Disorders of sweat glands, hairs and nails	A,D-H	A-I	A-F,I-L	A-P
Disorders of the mucous membrane	A,D-H	A-I	A-F,I-L	A-P

Cutaneous infections : bacterial, fungal, viral and arthropod infestation	A,D-H	A-I	A-F,I-L	A-P
Acne	A,D-H	A-I	A-F,I-L	A-P
Tumors of the skin	A,D-H	A-I	A-F,I-L	A-P
Nutritional dermatosis	A,D-H	A-I	A-F,I-L	A-P
Evaluation of patient and principles of therapy	B,D-H	A-I	A-F	A-P
Neoplastic diseases and tumors				
Leukemias and lymphomas	A,D-H	A-I	A-F,I-L	A-P
Neuroblastoma	A,D-H	A-I	A-F,I-L	A-P
Neoplasm of Kidney	A,D-H	A-I	A-F,I-L	A-P
Soft tissue sarcomas	A,D-H	A-I	A-F,I-L	A-P
Neoplasm of bone	A,D-H	A-I	A-F,I-L	A-P
Brain tumors	A,D-H	A-I	A-F	A-P
Retinoblastoma	A,D-H	A-I	A-F,I-L	A-P
Gonadal and germ cell neoplasm	A,D-H	A-I	A-F,I-L	A-P
Neoplasm of liver and gastrointestinal tract	A,D-H	A-I	A-F,I-L	A-P
Carcinomas	A,D-H	A-I	A-F,I-L	A-P
Benign tumors	A,D-H	A-I	A-F,I-L	A-P
Histiocytosis syndromes	A,D-H	A-I	A-F,I-L	A-P
Epidemiology and molecular pathogenesis	B,D-H	A-I	A	B-G,J-P
Principles of diagnosis and treatment	B,D-H	A-I	A-F	B-G,J-P
Environmental health hazards				
Radiation injury	A,D-H	A-I	A-F,I-L	B-G,J-P
Chemical pollutants	A,D-H	A-I	A-F,I-L	B-G,J-P
Heavy metal intoxication	A,D-H	A-I	A-F,I-L	B-G,J-P
Drugs, chemicals, and plants poisoning	A,D-H	A-I	A-F,I-L	B-G,J-P
Nonbacterial food poisoning	A,D-H	A-I	A-F,I-L	B-G,J-P

Envenomations	A,D-H	A-I	A-F,I-L	B-G,J-P
- Pediatric Pharmacogenetics, Pharmacogenomics, and Pharmacoproteomics - Principles of Drug Therapy - Anesthesia and Perioperative Care - Procedural Sedation - Pediatric Pain Management - Poisoning - Complementary Therapies and Integrative Medicine	A,D-H	A-I	A-F	A-P
Unit (module) 2: Pediatric Emergencies				
Croup syndromes	A,D-H	A-I	A-F,I-L	A-P
Acute Heart failure	A,D-H	A-I	A-F,I-L	A-P
Systemic hypertension	A,D-H	A-I	A-F,I-L	A-P
Convulsions	A,C-H	A-I	A-F,I-L	A-P
Acute motor deficit	A,D-H	A-I	A-F,I-L	A-P
Acute anemias	A,D-H	A-I	A-F,I-L	A-P
Acute bleedings, vasculitis syndromes	A,D-H	A-I	A-F,I-L	A-P
Envenomation with toxic encephalopathy or myocarditis	A,C-H	A-I	A-F,I-L	A-P
-Cardiac arrest -Shock -Syncope -Burn injuries	A,C-H	A-I	A-F,I-L	A-P
Anuria, acute renal failure	A,D-H	A-I	A-F,I-L	A-P
Drowning and near drowning	A,D-H	A-I	A-F,I-L	A-P
Hepatic cell failure	A,D-H	A-I	A-F,I-L	A-P
Dyspnea & Respiratory distress for DD	B-H	A-I	A-F,I-L	A-P

Acute cyanosis	B-H	A-I	A-F,I-L	A-P
Hypercyanotic spells	B,D-H	A-I	A-F,I-L	A-P
Coma for DD	B-H	A-I	A-F,I-L	A-P
Acute anemias	B,D-H	A-I	A-F,I-L	A-P
Food and drug poisoning	B-H	A-I	A-F,I-L	A-P
Acute abdomen for DD	B,D-H	A-I	A-F,I-L	A-P
Unit (Module) 3 : Pediatric Gastroenterology & Hepatology				
-Clinical Manifestations of Gastrointestinal Disease	A,D-H	A-I	A-F,I-L	A-P
Common lesions of the oral cavity	A,D-H	A-I	A-F,I-L	A-P
Malabsorptive disorders	A,D-H	A-I	A-F,I-L	A-P
Inflammatory bowel disease	A,D-H	A-I	A-F,I-L	A-P
GERD	A,C-H	A-I	A-F,I-L	A-P
congenital hypertrophic pyloric stenosis	A,D-H	A-I	A-F,I-L	A-P
Congenital anomalies of the anus, rectum and colon	A,D-H	A-I	A-F,I-L	A-P
Intestinal obstruction	A,D-H	A-I	A-F,I-L	A-P
GIT bleeding	A,C-H	A-I	A-F,I-L	A-P
Acute and chronic hepatitis	A,C-H	A-I	A-F,I-L	A-P
Fulminant hepatic failure	A,C-H	A-I	A-F,I-L	A-P
Cholestasis in infancy period	A,D-H	A-I	A-F,I-L	A-P
Liver cirrhosis and PH	A,C-H	A-I	A-F,I-L	A-P
Exocrine pancreas disorders	A,C-H	A-I	A-F,I-L	A-P
Acute and chronic diarrhea	B-H	A-I	A-F,I-L	A-P
Ascites and peritonitis	A,C-H	A-I	A-F,I-L	A-P
Acute and chronic abdominal pain	B-H	A-I	A-F,I-L	A-P
Unit (Module) 4 : Pediatric Hematology				
Anemias of inadequate production	A,C-H	A-I	A-F,I-L	A-P

Hemolytic anemia	A,C-H	A-I	A-F,I-L	A-P
Polycythemia	A,C-H	A-I	A-F,I-L	A-P
Pancytopenia	A-H	A-I	A-F,I-L	A-P
Hemorrhagic and thrombotic disease	A,B,C-H	A-I	A-F,I-L	A-P
Hematological malignancies	A-H	A-I	A-F,I-L	A-P
Lymphadenopathy	A,C-H	A-I	A-F,I-L	A-P
Splenomegaly	A,C-H	A-I	A-F,I-L	A-P
Gaucher disease	A,C-H	A-I	A-F,I-L	A-P
Blood and blood component transfusions	B	A-I	A-F,I-L	B-G,J-P
Bone marrow failure	B-H	A-I	A-F,I-L	A-P
-Different hematological presentations of covid infection	B-H	A-I	A-F,I-L	A-P
Unit (Module) 5 : Pediatric Nephrology & Urology				
Glomerular diseases	A-H	A-I	A-F,I-L	A-P
Tubular disorders	A-H	A-I	A-F,I-L	A-P
Toxic nephropathies	A,B,D-H	A-I	A-F,I-L	A-P
Acute renal failure	A,D-H	A-I	A-F,I-L	A-P
Chronic renal failure	A,D-H	A-I	A-F,I-L	A-P
Congenital anomalies of the kidneys & urogenital system	A,B,D-H	A-I	A-F,I-L	A-P
Urinary tract infections	A,B,D-H	A-I	A-F,I-L	A-P
Vesicoureteric reflux	A -H	A-I	A-F,I-L	A-P
Obstructive uropathy	A-H	A-I	A-F,I-L	A-P
Disorders of the urinary bladder	A, B,D-H	A-I	A-F,I-L	B-G,J-P
Urinary lithiasis	A,B,D-H	A-I	A-F,I-L	B-G,J-P
Disorders of male child genital system	A,D-H	A-I	A-F,I-L	B-G,J-P
Disorders of female child genital system	A,D-H	A-I	A-F,I-L	B-G,J-P
Conditions associated with	B-H	A-I	A-F,I-L	A-P

hematuria.				
Conditions associated with proteinuria.	B-H	A-I	A-F,I-L	A-P
Voiding disorders	B,D-H	A-I	A-F,I-L	A-P
Unit (Module) 6 : Pediatric Neurology & Psychology				
- Congenital anomalies of central nervous system				
Cerebral Palsy	A,B,D-H	A-I	A-F,I-L	A-P
Motor deficit (hemiplegia,paraplegia, quadriplegia)	A,B,D-H	A-I	A-F,I-L	A-P
Epilepsy & condition that mimic epilepsy	A,B,D-H	A-I	A-F,I-L	A-P
Headache -Encephalopathies	A,B,D-H	A-I	A-F,I-L	A-P
Neurodegenerative and neurometabolic diseases	A,B,D-H	A-I	A-F,I-L	A-P
-Demyelinating disorders of the CNS -Pediatric stroke -CNS vasculitis -CNS infections	A,B,D-H	A-I	A-F,I-L	A-P
Intra cranial tumors	A-H	A-I	A-F,I-L	A-P
CNS infections	A,D-H	A-I	A-F,I-L	A-P
Neuro cutaneous syndromes	A,B,D-H	A-I	A-F,I-L	A-P
Ataxia & movement disorder	A,D-H	A-I	A-F,I-L	A-P
Spinal cord disorders	A,C-H	A-I	A-F,I-L	A-P
Muscular dystrophies	A,B,D-H	A-I	A-F,I-L	A-P
Myopathies & myositis	A,B,D-H	A-I	A-F,I-L	A-P
Disorders of neuromuscular transmission	A,B,D-H	A-I	A-F,I-L	A-P
Disorders of motor neurons	A,B,D-H	A-I	A-F,I-L	A-P
Peripheral neuropathy	A,B,D-H	A-I	A-F,I-L	A-P

Psychosomatic illness	C	A-I	A-F,I-L	B-G,J-P
-Rumination and pica -Eating disorders -Conduct disorders	A, C	A-I	A-F,I-L	B-G,J-P
Vegetative disorder	C	A-I	A-F,I-L	B-G,J-P
Habit, Anxiety, & mood disorders	C	A-I	A-F,I-L	B-G,J-P
Pervasive disorders & psychosis	C	A-I	A-F,I-L	B-G,J-P
Behavioral disorders	C	A-I	A-F,I-L	B-G,J-P
Unit (Module) 9 : Pediatric Pulmonolpgy & TB				
Congenital anomalies of respiratory tract	A,D-H	A-I	A-F,I-L	A-P
Croup, epiglottitis, laryngitis, and tracheitis	A,D-H	A-I	A-F,I-L	A-P
Wheezing, bronchitis and bronchiolitis	A,B-H	A-I	A-F,I-L	A-P
Emphysema and over inflation	A,D-H	A-I	A-F,I-L	A-P
Aspiration syndromes	A,D-H	A-I	A-F,I-L	A-P
Infective & non infective pneumonia	A,B,D-H	A-I	A-F,I-L	A-P
Bronchiectasis, pulmonary abscess	A,B,D-H	A-I	A-F,I-L	A-P
Covid-19 infection	A,B,D-H	A-I	A-F,I-L	A-P
Pulmonary TB	A,B,D-H	A-I	A-F,I-L	A-P
Cystic fibrosis	A,D-H	A-I	A-F,I-L	A-P
Interstitial lung diseases	A,D-H	A-I	A-F,I-L	A-P
Pulmonary hemosiderosis	A,D-H	A-I	A-F,I-L	A-P
Pulmonary embolism, infarction and hemorrhage	A,D-H	A-I	A-F,I-L	A-P
Atelectasis	A,D-H	A-I	A-F,I-L	A-P
Pulmonary tumors	A,D-H	A-I	A-F,I-L	A-P

Pleurisy, pleural effusions and empyema	A,D-H	A-I	A-F,I-L	A-P
Neuromuscular & skeletal diseases affecting lung	A,D-H	A-I	A-F,I-L	A-P
Chronic or recurrent respiratory symptoms	B,D-H	A-I	A-F,I-L	A-P
- Bronchial asthma and bronchiolitis	B,D-H	A-I	A-F,I-L	A-P
-Primary ciliary dyskinesia -diffuse lung diseases of childhood -Immune and inflammatory lung disorders -Chronic respiratory insufficiency	A,D-H	A-I	A-F,I-L	A-P
Unit (Module) 8 : Pediatric Cardiology				
Evaluation of the Cardiovascular System and the Child with A Heart Murmur	A-H	A-I	A-F,I-L	A-P
Congenital heart disease with left to right shunt	A-H	A-I	A-F,I-L	A-P
Acyanotic congenital heart disease	A-H	A-I	A-F,I-L	A-P
Cyanotic heart disease with increased pulmonary blood flow	A-H	A-I	A-F,I-L	A-P
Cyanotic heart disease with restricted pulmonary blood flow	A-H	A-I	A-F,I-L	A-P
-Vascular malformations -Pulmonary hypertension -General principles of treatment of congenital heart	A-H	A-I	A-F,I-L	A-P

disease				
Pediatric cardiac dysrhythmias	A-H	A-I	A-F,I-L	A-P
Chronic valvular rheumatic heart disease	A-H	A-I	A-F,I-L	A-P
Cardiomyopathy	A-H	A-I	A-F,I-L	A-P
Infective endocarditis	A-H	A-I	A-F,I-L	A-P
Pericardial effusion	A,D-H	A-I	A-F,I-L	A-P
Cyanosis	B-H	A-I	A-F,I-L	A-P
Rheumatic fever	B-H	A-I	A-F,I-L	A-P
Heart failure	B-H	A-I	A-F,I-L	A-P
-Cardiac tumors -Heart failure -Sudden Death	A-H	A-I	A-F,I-L	A-P
Systemic hypertension	B,D-H	A-I	A-F,I-L	A-P
Care of children with cardiac invasive operations in the perioperative period	B-H	A-I	A-F,I-L	A-P
Pediatric heart-lung transplantation	A-H	A-I	A-F,I-L	A-P
Unit (Module) 9 : Pediatric Endocrinology & Diabetes				
Diabetes mellitus	A-H	A-I	A-F,I-L	A-P
Diabetes insipidus & hypothalamic disorders	A-H	A-I	A-F,I-L	A-P
Hypo- and hyperpituitarism	A-H	A-I	A-F,I-L	A-P
Hypo- and hyperthyroidism	A,C-H	A-I	A-F,I-L	A-P
Hypo- and hyperparathyroidism	A-H	A-I	A-F,I-L	A-P
Hypo- and hyperadrenocorticism	A-H	A-I	A-F,I-L	A-P
Delayed and precocious puberty	A,C-H	A-I	A-F,I-L	A-P

Abnormalities of gonads	A-H	A-I	A-F,I-L	A-P
Intersex	A-H	A-I	A-F,I-L	A-P
-Autoimmune polyglandular syndromes -Multiple endocrine neoplasia syndromes	A-H	A-I	A-F,I-L	A-P
Short & tall stature	B-H	A-I	A-F,I-L	A-P
Obesity	B-H	A-I	A-F,I-L	A-P
Polyurea and polydipsia	B-H	A-I	A-F,I-L	A-P
Hypo- and hyperglycemia	B-H	A-I	A-F,I-L	A-P
Hypo- and hypercalcemia	B-H	A-I	A-F,I-L	A-P
Ambiguous genitalia	B-H	A-I	A-F,I-L	A-P
Unit (Module) 10 : Pediatric Intensive Care				
Status epilepticus	A	A-I	A-F,I-L	A-P
Status asthmaticus	A-H	A-I	A-F,I-L	A-P
Encephalopathy	A-H	A-I	A-F,I-L	A-P
Cardiogenic shock	A-H	A-I	A-F,I-L	A-P
Septic shock	A-H	A-I	A-F,I-L	A-P
C.N.S strokes	A-H	A-I	A-F,I-L	A-P
Hepatic encephalopathy	A,D-H	A-I	A-F,I-L	A-P
Cardiac dysrhythmia	A,C-H	A-I	A-F,I-L	A-P
Severe cases of intoxication	A,C-H	A-I	A-F,I-L	A-P
Diabetic ketoacidosis	A,C-H	A-I	A-F,I-L	A-P
Increase intracranial tension	A,C-H	A-I	A-F,I-L	A-P
Respiratory failure	B-H	A-I	A-F,I-L	A-P
Cardiac arrest -Shock -Syncope -Drowning -Burn injuries	B-H	A-I	A-F,I-L	A-P
Hematemesis	B,D-H	A-I	A-F,I-L	A-P
Cardiac tamponade	B,C-H	A-I	A-F,I-L	A-P
Metabolic & acid/ base disor.	B,C-H	A-I	A-F,I-L	A-P
Hypertensive	B-H	A-I	A-F,I-L	A-P

encephalopathy				
Increase intracranial pressure	B-H	A-I	A-F,I-L	A-P
Unit (Module) 11 : Pediatric Neonatology & NICU				
High risk infants (multiple gestations, prematurity, IUGR, post-term, large for gestational age)	A-H	A-I	A-F,I-L	A-P
Respiratory disorders (apnea, RDS, TTN, aspiration pneum, meconium aspiration, air leak syndrome, diaphrag hernia)	A,B,D-H	A-I	A-F,I-L	A-P
Jaundice and kernicterus	A,B,D-H	A-I	A-F,I-L	A-P
Neonatal resuscitation	A,B,D-H	A-I	A-F,I-L	A-P
Necrotizing enterocolitis	A,B,D-H	A-I	A-F,I-L	A-P
Anemia, hemolytic disease of the newborn	A,B,D-H	A-I	A-F,I-L	A-P
Hemorrhagic disease of the newborn, polycythemia, thrombocytopenia	A,B,D-H	A-I	A-F,I-L	A-P
Hypoglycemia	A-H	A-I	A-F,I-L	A-P
Infant of diabetic mother	A-H	A-I	A-F,I-L	A-P
Neonatal sepsis	A,B,D-H	A-I	A-F,I-L	A-P
Hypoxic ischemic encephalopathy	A,B,D-H	A-I	A-F,I-L	A-P
Neonatal seizures	A,B,D-H	A-I	A-F,I-L	A-P
Abstinence syndromes	A,B,D-H	A-I	A-F,I-L	A-P
Routine delivery room care	B	A-I	A-F,I-L	A-P
Nursery care	B	A-I	A-F,I-L	A-P
Infant transport	B	A-I	A-F,I-L	A-P
Clinical manifestations of diseases in the neonatal period	B-H	A-I	A-F,I-L	A-P

5 - Methods of teaching/learning:

1. Lecture
2. seminar
3. outpatient
4. inpatient
5. case presentation
6. Direct observation
7. Didactic (lectures, seminars, tutorial)
8. journal club,
9. Critically appraised topic,
10. Educational prescription
11. Present a case (true or simulated) in a grand round
12. Case log
13. Observation and supervision
14. Written & oral communications
15. Observation & supervision

6 - Methods of teaching/learning: for students of limited abilities

1. Lecture
2. seminar
3. outpatient
4. inpatient
5. case presentation
6. Direct observation
7. Didactic (lectures, seminars, tutorial)
8. journal club,
9. Critically appraised topic,
10. Educational prescription
11. Present a case (true or simulated) in a grand round
12. Case log
13. Observation and supervision
14. Written & oral communications
15. Observation & supervision

7- Assessment methods:

i. Assessment tools:

1. oral examination

2. Clinical examination
3. Written examination
4. Objective structure clinical examination (OSCE)
5. Portfolios
6. Procedure/case Logbook
7. Simulation
8. Record review (report)
9. Patient survey
10. 360o global rating
11. Check list evaluation of live or recorded performance

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

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, 21th edition

iii. Recommended books

- Forfar textbook of pediatrics, 8th edition

iv. Periodicals, Web sites, ... etc

- Pediatrics.
- Pediatric clinics of North America
- Acta Paediatrica
- Archives disease of childhood

9. Signatures

Course coordinator:	Head of the Department:
Date:	Date

ANNEX 2

Program Academic Reference Standards (ARS)

*1- Graduate attributes for medical doctorate **in Pediatrics***

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

- 1-** Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in Pediatrics
- 2-** Have continuous ability to add knowledge to Pediatrics through research and publication.
- 3-** Appraise and utilise relevant scientific knowledge to continuously update and improve clinical practice.
- 4-** Acquire excellent level of medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific research.
- 5-** Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.
- 6-** Identify and create solutions for health problems in Pediatrics
- 7-** Acquire an in depth understanding of common areas of Pediatrics from basic clinical care to evidence based clinical application, and possession of required skills to manage independently all problems in these areas.

- 8-** Demonstrate leadership competencies including interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.
- 9-** Function as teacher in relation to colleagues, medical students and other health professions.
- 10-** Master decision making capabilities in different situations related to Pediatrics
- 11-** Show leadership responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.
- 12-** Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.
- 13-** Show model attitudes and professionalism.
- 14-** Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in Pediatrics or one of its subspecialties.
- 15-** Use recent technologies to improve his practice in Pediatrics.
- 16-** Share in updating and improving clinical practice in Pediatrics .

2- Competency based Standards for medical doctorate *in* Pediatrics

22.1- Knowledge and understanding

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

2-1-A- Established, updated and evidence- based theories, basics and developments of Pediatrics

and relevant sciences.

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

2-1-C- Ethical and medicolegal principles of medical practice related to Pediatric.

2-1-D- Principles and measurements of quality in Pediatrics

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

2- Intellectual skills

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

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

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

2-2-C- Involvement in research studies related to Pediatrics.

2-2-D- Writing scientific papers.

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

2-2-F- Planning for performance improvement in Pediatrics.

2-2-G- Creation and innovation in Pediatrics

2-2-H- Evidence – based discussion.

2-2-I- Decision making in different situations related to Pediatrics .

2.3- Clinical skills

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

Competency-based outcomes for Patient Care:-

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

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

2-3-C- Write and evaluate reports for situations related to the 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- Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management

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

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

Competency-based objectives for Interpersonal and Communication Skills

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

 Competency-based objectives for Professionalism

2-4-E-Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

 Competency-based objectives for Systems-based Practice:

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

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

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

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

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

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

Teaching methods for knowledge

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

Teaching methods for patient care

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

Teaching methods for other skills

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

Annex 4, Assessment methods

Annex 4, ILOs evaluation methods for MD students.

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

Annex 4, Glossary of MD students assessment methods

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

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

Annex 5, Program evaluation tools

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 الدكتوراه مع المعايير الأكاديمية
المعتمدة من كلية الطب □ جامعة أسيوط لدرجة الدكتوراه في طب الأطفال

1- Graduate attributes

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

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

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

health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.	على البيئة
13- Show model attitudes and professionalism.	14-التصرف بما يعكس الالتزام بالنزاهة و المصداقية و قواعد المهنة
14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in Pediatrics or one of its subspecialties. 15- Use recent technologies to improve his practice in Pediatrics.	15-الالتزام بالتنمية الذاتية المستمرة و نقل علمه و خبراته للآخرين

2- Academic standards

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

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

II-Program ARS versus program ILOs

Comparison between ARS- ILOS for medical doctorate for Pediatrics

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

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

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

	information about patients of the Pediatricsrelated conditions. 2-3-1-H Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the Pediatrics related conditions. 2-3-1-I- Develop and carry out patient management plans for Pediatricsr elated conditions. 2-3-1-J- Counsel and educate patients and their families about Pediatrics related conditions. 2-3-1-K- Use information technology to support patient care decisions and patient education in all Pediatrics related clinical situations. 2-3-1-L- Perform competently all medical and invasive procedures considered essential for the Pediatrics related conditions / area of practices. 2-3-1-M- Provide health care services aimed at preventing the Pediatrics related health problems. 2-3-1-N- Lead health care professionals, including those from other disciplines, to provide patient-focused care in Pediatrics related conditions.
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2-3-C- Write and evaluate reports for situations related to the field of Pediatrics	2-3-1-O- Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive timely and legible medical records).
<u>2-4- General skills</u> 2-4-A- Master practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	<u>2/3/2 General skills</u> 2-3-2-A- Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of Pediatrics. 2-3-2-B- Appraise scientific evidence. 2-3-2-C- Continuously improve patient care based on constant self-evaluation and <u>life-long learning</u>. 2-3-2-D. Participate in clinical audit and research projects. 2-3-2-E- Practice skills of evidence-based Medicine (EBM). 2-3-2-G- Design logbooks. 2-3-2-H- Design clinical guidelines and standard protocols of management. 2-3-2-I- Appraise evidence from scientific studies related to the patients' health problems.

2-4-B- Use competently all information sources and technology to improve his practice.	2-3-2-J- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies. 2-3-2-K- Use information technology to manage information, access on-line medical information; for the important topics.
2-4-C- Master skills of teaching and evaluating others.	2-3-2-F- Educate and evaluate students, residents and other health professionals.
2-4-D- Master interpersonal and communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-3-2-L- Master interpersonal and communication skills that result in the effective <u>exchange of information and collaboration</u> with patients, their families, and health professionals, including:- • <u>Present</u> a case. • <u>Write</u> a consultation note. • <u>Inform patients</u> of a diagnosis and therapeutic plan Completing and maintaining comprehensive. • Timely and legible <u>medical records</u>. • Teamwork skills. 2-3-2-M- Create and sustain a therapeutic and ethically sound relationship with patients. 2-3-2-N- Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-O- Work effectively with others as a member or leader of a health care team or other professional group.
2-4-E- Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical	2-3-2-P- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.

principles, and sensitivity to a diverse patient population.	2-3-2-Q- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices. 2-3-2-R- 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. 2-4-G- Participate in improvement of the education system.	2-3-2-S- Work effectively in health care delivery settings and systems related to Pediatrics including good administrative and time management. 2-3-2-T- Practice cost-effective health care and resource allocation that does not compromise quality of care. 2-3-2-U- Advocate for quality patient care and assist patients in dealing with system complexities. 2-3-2-V- Design, monitor and evaluate specification of under and post graduate courses and programs.
2-4-H- Demonstrate skills of leading scientific meetings including time management	2-3-2-W- Act as a chair man for scientific meetings including time management 2-3-2-S- Work effectively in health care delivery settings and systems related to Pediatrics including good administrative and time management.
2-4-O- Demonstrate skills of self and continuous learning .	From A to H

Program matrix
Knowledge and understanding

Course	Program covered ILOs				
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E
Course 1 : Medical statistics		✓			
Course 2: Research methodology		✓			
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research			✓		
Course 4: Applied physiology	✓				
Course 5 : General Basics of Pediatric	✓				
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓

Intellectual

Course	Program covered ILOs								
	2/2/A	2/2/B	2/2/C	2/2/D	2/2/E	2/2/F	2/2/G	2/2/H	2/2/I
Course 1 : Medical statistics			✓	✓				✓	
Course 2 : Research Methodology			✓	✓				✓	
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research								✓	
Course 4: Applied physiology	✓	✓							
Course 5 : General Basics of Pediatric)	✓	✓							
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/ A	2/3/1/ B	2/3/1/ C	2/3/1/ D	2/3/1/ E	2/3/1/ F	2/3/1/ G	2/3/1/ H
Course 1 : Medical statistics								
Course 2 : Research Methodology								
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research				✓				✓
Course 4: Applied physiology								
Course 5 : General Basics of Pediatric)								
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓	✓

Practical Skills (Patient Care)

Course	Program covered ILOs						
	2/3/1/I	2/3/1/J	2/3/1/K	2/3/1/L	2/3/1/M	2/3/1/N	2/3/1/O
Course 1 : Medical statistics							
Course 2 : Research Methodology							
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research	✓	✓					✓
Course 4: Applied physiology							
Course 5 : General Basics of Pediatric)							
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs							
	2/3/2/ A	2/3/2/ B	2/3/2/ C	2/3/2/ D	2/3/2/ E	2/3/2/ F	2/3/2/ G	2/3/2/ H
Course 1 : Medical statistics		✓						
Course 2 : Research Methodology		✓		✓	✓			
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research								
Course 4: Applied physiology								
Course 5 : General Basics of Pediatric)								
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓	✓

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 : Medical statistics	✓	✓	✓					
Course 2 : Research Methodology	✓	✓						
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research				✓				
Course 4: Applied physiology			✓	✓				
Course 5 : General Basics of Pediatric)			✓	✓				
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓	✓

General Skills

Course	Program covered ILOs						
	2/3/2/ Q	2/3/2/ R	2/3/2/ S	2/3/2/ T	2/3/2/ U	2/3/2/ V	2/3/2/ W
Course 1 : Medical statistics							
Course 2 : Research Methodolog							
Course 3 : Medicolegal Aspects and Ethics in Medical Practice and Scientific Research							
Course 4: Applied physiology							
Course 5 : General Basics of Pediatric)	✓		✓				
Course 6 : Advanced Pediatrics	✓	✓	✓	✓	✓	✓	✓

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. Neuorology 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 clinical pharmacies.
- 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 equipment and Specialized Units.

(End of the program specifications)