**An-Najah National University**

 **Faculty of Medicine and Health Sciences**

 **Pediatric Department**

**Course Specifications:**

Course Title: Pediatrics

 3rd Clinical year (known as 6th year)

 Academic year 2015/2016

Department: Pediatrics

Program: Medical Doctor Program

Code: 7223601

Course Duration: 6 weeks rotation

Teaching Hours: 8 Credit hours

Teaching and learning

 Facilities: An-Najah National University Hospital

 Affiliated Ministry of Health Hospitals

 Affiliated Private Hospitals

**UNDER GRADUATE PEDIATRIC TEACHING OBJECTIVES**

This eight-week clerkship allows students to gain clinical experience in evaluating newborns, infants, children and adolescents (both sick and well) through clinical history taking, physical examination and the evaluation of laboratory data.

Pediatric in-patient services provide the student with the opportunity to observe medical and surgical disorders of pediatric patients. Admission histories and physical examinations teach the student how to approach the patient and family.  The student must learn specific skills regarding the interviewing of parents and pediatric patients. The student will develop the skills necessary to examine children from infancy through adolescence.  The adequacy and accuracy of the students’ clinical skills and professional behavior will be measured and evaluated by their supervising physicians. Attendance and active participation in didactic learning opportunities, clinical seminars, self-directed learning modules, and conferences will expand the student’s concept of providing care for the pediatric patient.

Multiple learning opportunities are provided to the student to explore in depth the issues of pediatric care.

The student must participate in the night, weekend, and holiday on- call schedules.

 **Knowledge: The student will learn:**

**a- Knowledge and Understanding**

**By the end of the course the student should be able to:**

1- Describe normal growth and development during infancy, childhood and adolescence.

2- Describe appropriate management for abnormalities affecting growth and development.

3- Determine the nutritional requirements and the most common nutritional disorders affecting infants and children, and describe appropriate management for disorders.

4- Describe the indications, contraindications, administration and precautions of the immunizations necessary for infants and children according to the national schedule and the condition of the child.

5- Cite the management priorities for different neonatal and Pediatric emergencies.

6- Describe the clinical symptoms and signs of the most important neonatal and Pediatric problems.

7- Identify the appropriate diagnostic tools (and describe how they would be interpreted) and therapeutic lines for the most important neonatal and Pediatric problems.

8-Common acute and chronic pediatric conditions, congenital and genetic syndromes, and the importance of age on their manifestations and treatment. 9-9- Gain supplementary information and data from journals, texts, research, the internet and other resources.

10- Demonstrate knowledge regarding the major illnesses and conditions that affect newborns.

**Skills:**  **By the end of the course the student should be able to:**

1-lnterpret the most important symptoms and signs of disease in Pediatric patients.

2-Formulate appropriate management plans for individual patients presenting with the most common Pediatric disorders.

3-Make decisions regarding common clinical situations using appropriate problem solving skills.

4-Communication skills:

- Interacting effectively and sensitively with families, children and adolescents, and with health care teams in verbal and written presentations.

- Recognize the important role of patient education in prevention and treatment of disease.

5- History Taking: From parents, children and adolescents, collecting complete and accurate information and focusing appropriately.

6- Describe how to modify the interview depending on the age of the child, with particular attention to the following age groups: toddler/preschooler, school-age child, adolescent.

7- Learning the use of tools e.g stethoscope thermometer, sphygmomanometer and reflex hammer.

8- Comply with infection control guidelines.

9- Clinical Problem Solving: Using data from history, physical, labs and studies to define problems, develop a differential diagnosis, and identify associated risks. Interpret X ray, CT films, blood gas and blood picture reports covering the most important Pediatric conditions.

10- Participate in the selection of relevant laboratory and radiological tests.

11- Demonstrate your ability to research topics and apply clinical research to your understanding of patient issues.

**Professionalism: The student will be expected to:**

1) Demonstrate compassion, empathy and respect toward children and families, including respect for the patient’s modesty, privacy and confidentiality.

- Deal with the patient as a person not as a disease.

2) Demonstrate respect for patient, parent, and family attitudes, behaviors and lifestyles, paying particular attention to cultural, ethnic and socioeconomic influences.

3) Function as an effective member of the health care team, demonstrating collegiality and respect for all members of the health care team.

- Demonstrate that you are a responsible team member and carry out all of your assigned duties in a timely manner.

- Demonstrate that you are an effective member of the team by fully participating in discussions and contributing to learning endeavors.

4) Identify and explore personal strengths, weaknesses and goals.

**Sites:**

 General pediatric unit, pediatric emergency unit, neonatal intensive care, PICU, outpatient clinics.

The student maintains a Manual Skills and Procedures Log in which are listed the procedures performed or witnessed.

**Teaching and Learning Methods**

1. Formal Lectures

2. General Pediatric inpatients ward teaching.

3. Daily ward rounds

4. Outpatient clinic attendance.

5. Emergency department teaching.

6. Neonatal unit teaching

7. Journal club

8. Topic presentation

9. Guest lecture

 **Thesis**

Every candidate should carry out work on an assigned research project under the guidance of a recognized Postgraduate Teacher; the project shall be written and submitted in the form of a Thesis.

**Exams**

At the end of the rotation an evaluation would include:

1. Attendance, initiative, participation and knowledge
2. The student will submit a copy of his/her Patient Encounter Log.

*Marks allocated 30 (30/100)*

**Final Exam**

At the end of the academic year there will be a final exam.

1. *A written Exam – MCQ`s Marks allocated 30 (30/100)*
2. *An OSCE and Viva Exam Marks allocated 40 (40/100)*

Total Exam Marks 100 (30+30+40)

Exam pass marks 70

**Core curriculum**

**General:**

Pediatric history

Pediatric physical exam

Patient write-up (problem oriented approach)

Begin to formulate a differential diagnosis that relates to the presenting complaint, symptoms and findings on history and physical examination.

Formulate a plan for further evaluation (i.e. laboratory, radiology), treatment and management.

**Growth and development:**

Normal growth and development

Developmental milestones (when and how to evaluate)

Failure to thrive

Short stature

**Neonatology:**

Normal newborn

Care in the labor room and resuscitation

Newborn feeding-Breast feeding-Feeding problems-[Counseling the Breastfeeding](http://emedicine.medscape.com/article/979458-overview)

 [mother](http://emedicine.medscape.com/article/979458-overview)

Thermoregulation

Perinatal care

Low birth weight-prematurity

[Infant of Diabetic Mother](http://emedicine.medscape.com/article/974230-overview)

[Kernicterus](http://emedicine.medscape.com/article/975276-overview)

Respiratory distress

[Transient Tachypnea of the Newborn](http://emedicine.medscape.com/article/976914-overview)

Apnea of prematurity

Infections-Sepsis

Anemia of prematurity

[Hemorrhagic Disease of Newborn](http://emedicine.medscape.com/article/974489-overview)

Jaundice

Seizures

Malformations

Birth injuries

Newborn screening

APGAR scoring/

Sudden Infant Death Syndrome

 **Nutrition:**

Infant feeding including vitamin and mineral deficiencies, weaning

Complementary feeding

Obesity

**Cardiovascular:**

Congenital heart disease (Cyanotic and acyanotic), and as isolated findings as they relate to genetic syndromes.

 Rheumatic fever

 Infective endocarditis

 Heart Arrhythmia

 Systemic hypertension

 Myocarditis and pericarditis

**Respiratory:**

Infections of upper respiratory tract

Otitis media

Obstructive sleep apnea

Foreign body in larynx trachea & bronchus obstruction

Bronchiolitis

Pneumonia

Suppurative lung disease

Croup/epiglottitis

Asthma

Cystic fibrosis

Tuberculosis

**Gastrointestinal and liver disease:**

 Gastroenteritis

 H. pylori infection

 Congenital pyloric stenosis

 GERD

 Peptic ulcer

 Intestinal obstruction

 Malabsorption syndrome

 Acute and chronic diarrhea

 Irritable bowel syndrome

 Hirschsprung’s disease

 Hepatitis

 Cirrhosis and portal hypertension

 Constipation

 Intussusception

 **Nephrology & Urology disorders:**

Acute and chronic glomerulonephritis

 Nephrotic syndrome

Hemolytic uremic syndrome

 Urinary tract infection

VUR and renal scarring

Renal tubular disorders diseases

Posterior urethral valves

Undescended testis

**Neurologic disorders:**

 Seizure disorder and epileptic syndromes

Meningitis of childhood

 Coma

Acute encephalitis

Guillain-Barre syndrome

Neuromuscular disorders

Learning disabilities

Muscular dystrophies

Ataxia

Movement disorders

**Hematology & Oncology:**

Deficiency anemias

 Hemolytic anemias

Aplastic anemia \_ pancytopenia, disorders of thrombocytopenia hemostasis

Acute and chronic leukemia

Hodgkin disease

Non-Hodgkin’s lymphoma

 Neuroblastoma

Blood coagulopathy

**Endocrinology:**

Diabetes mellitus

Diabetes insipidus

Hypothyroidism

Adrenal insufficiency, adrenogenital syndromes \_

Hypoglycemia

Short stature

Obesity

**Infections:**

Bacterial

 Viral

Parasitic

Control of epidemics and infection prevention

**Collagen Vascular:**

 Juvenile Rheumatoid Arthritis

Henoch Schonlein purpura

Kawasaki disease

**Emergency & Critical care:**

 Emergency care of shock

 Cardio-respiratory arrest

 Respiratory failure

Status epilepticus

Acute severe asthma

Fluid and electrolyte disturbances and its therapy, acid-base disturbances

Poisoning

Scorpion and snake bites

**Skin Diseases:**

Exanthematous illnesses

Steven-Johnson syndrome

 Eczema

Seborrheic dermatitis

Urticaria

 **Behavioral & Developmental disorders:**

Pica

Enuresis, Encopresis

Breath holding spells

 Temper tantrums

Attention deficit hyperactivity disorders

Child abuse and neglect

**Genetics:**

Pedigree drawing

Chromosomal ( Down Syndrome, 21 trisomy, 13 trisomy, 18 trisomy, Turner Syndrome, Klinefelter Syndrome0

Genetic diagnosis

**History and examination:**

History taking including psychosocial history

 Physical examination including, newborn examination, assessment of growth, use of growth chart, developmental evaluation, full systemic examination, drainage

**Interpretation:**

Interpretation of X-rays of chest, abdomen, bone and skull

 ECG

ABG findings;

Ultrasound

Common EEG patterns CT scan

 Topics prepared and presented by the students included in the curriculum:

1. Approach to the newborn infant with RDS, apnea, and cyanosis
2. Approach to the newborn infant with jaundice
3. Approach to the newborn infant with convulsion
4. Approach to the newborn infant with ambiguous genitalia
5. Approach to the newborn infant with vomiting, abdominal distention, and absent meconium
6. Infection in the newborn infant
7. Nutrition and fluid therapy in the newborn infant
8. Approach to the child with irritability
9. Approach to the child with earache, rhinorrhea, and sore throat.
10. Approach to the child with cough (acute and chronic), wheezing, and tachypnea.
11. Approach to the child with fever
12. Approach to the child with cyanosis
13. Approach to the child with diarrhea and evaluation of level of dehydration, oral rehydration therapy.
14. Approach to the child with abdominal pain
15. Approach to the child with vomiting
16. Approach to the child with constipation
17. Approach to the child with jaundice
18. Approach to the child with hepatosplenomegaly
19. Approach to the child with headache
20. Approach to the child with convulsion
21. Approach to floppy baby
22. Approach to the child with coagulation disorders
23. Approach to the child with lymphadenopathy
24. Approach to the child with limping and arthritis
25. Approach to the child with short stature
26. Approach to the child or newborn infant with hypoglycemia
27. Approach to the child with edema and proteinuria
28. Approach to the child with polyuria, oliguria and acute renal failure
29. Approach to the child with anemia
30. Approach to the child with respiratory distress and airway obstruction ( croup, epiglottitis, and foreign body)
31. Approach to the child with shock
32. Approach to the child who has swallowed burning materials or foreign body
33. Approach to the child with decreased level of consciousness ( coma and delirium)
34. Food allergy and atopic dermatitis
35. DKA
36. Common symptoms of hereditary metabolic disorders
37. Common principal congenital cardiac disorders
38. Common symptoms of malignant diseases of children
39. Common findings of heart failure in children

**Procedures:**

 Venipuncture

 Urine catheterization

 Lumbar Puncture

 Basic Life support

 Insertion of nasogastric tube

 Intraosseous injection

 Administration of oxygen (pediatric and neonatal)

 **Comprehensive Textbooks**

Nelson’s Textbook of Pediatrics, Latest Edition, Saunders publisher, edited by Behrman, Kliegman, Jenson

Illustrated Textbook of Pediatrics by Tom Lissauer and Graham Clayden

Current Pediatric Diagnosis and Treatment

**Abbreviated Reference Books**

Harriet Lane Handbook, Mosby publisher, edited by senior pediatric residents at The Johns Hopkins Hospital