

# COURSE CONTENTS

<b>Course Title (Symbol and No.)</b>	: 473 Paediatrics
<b>Credit Hours</b>	: 11 (2 + 9)
<b>Contact Clock Hours</b>	: Theoretical Tutorials & Practicals
<b>Pre-requisites</b>	: 7:30 AM – 4:30 PM

## Summary of Course Contents:

Students spend 12 weeks in the department. This constitutes their entire pediatric training. Due to the cycle system, every batch may do pediatrics straight after finishing Level 9 or after rotating through other cycles e.g., medicine, surgery, etc. Students, however, have been given courses in medicine and surgery during or before Level 9 and, therefore, they should have the background in clinical practice. During these 12 weeks, it is impossible to cover all topics in details. Emphasis is put on graduating general physicians who have enough basic knowledge in pediatrics.

The following is a concise outlook of the curriculum:

## 1. Course Objectives

### General Objectives

To graduate a physician who:

is aware of the personal qualities and attitudes required by a physician caring for children and their families e.g., empathy, concern, gentleness, etc.

has acquired adequate basic knowledge and skills in pediatrics which enable him/her to proceed into subsequent general practice, especially training or research activities.

### Specific Objectives

At the end of the course the student is expected to:

- perform, record and interpret a full pediatric history.
- 1.2.2 carry out, record and interpret a complete physical examination in all pediatric age groups.
- 1.2.3 identify and solve common clinical problems in pediatrics and be able to outline an appropriate plan of action.
- 1.2.4 recognize urgent and emergency situations in pediatrics and be able to outline an appropriate plan of action.
- 1.2.5 outline a general plan of investigations and management of common pediatric problems as they relate to Saudi Arabia.

- 1.2.6 demonstrate an understanding of how to use the laboratory to reach a diagnosis of common pediatric problems.
- 1.2.7 demonstrate knowledge of community problems related to child health.
- 1.2.8 demonstrate knowledge or preventive aspects of childhood health problems and how to implement them.
- 1.2.9 recognize his limitations concerning management of pediatric patients and the need to consult and cooperate with others to provide optimum care.
- 1.2.10 interact with children and their parents or relatives in a gentle, empathic and appropriate manner.

## **2. Instructional strategies:**

### **Didactic teaching: Lectures and seminars**

Series of lectures and seminars covering selected topics in pediatrics will be delivered to all students together at the beginning of the course.

- 2.1.1 Development and behavior in pediatrics
  - Normal development
  - Development assessment
  - Development delay (excluding mental retardation)
  - Behavior
  - Normal versus abnormal
  - Common behavioral problems (e.g., temper, tantrum, attention seeking, etc.)
- 2.1.2 Nutrition
  - Breast feeding
  - Bottle feeding
  - Normal nutritional needs
  - Protein-calorie malnutrition
  - Failure to thrive
  - Obesity
  - Vitamin deficiency (Vit D deficiency)
- 2.1.3 Neonatology
  - Normal newborn
  - Common disorders; respiratory distress, sepsis, others
- 2.1.4 Genetics
  - Basics of inheritance
  - Approach to dysmorphic children
  - Examples of common syndrome e.g., Trisomy 21, 13, 18; Turner syndrome
- 2.1.5 Metabolic disorders
  - Presentation and detection
  - Approach to suspected metabolic diseases e.g., galactosemia, aminoacidopathies, organic acidemia, storage diseases

- 2.1.6 Allergy and Clinical Immunology
  - Basics of immunity
  - Common immune deficiency disorders
  - Active and passive immunization
  - Common allergic disorders
  
- 2.1.7 Rheumatic and autoimmune disorders
  - Juvenile rheumatoid arthritis
  - Systemic lupus erythematosus
  - Henoch-Schonlein purpura
  - Kawasaki syndrome
  
- 2.1.8 Infectious Diseases
  - Common Infections:
    - measles, chicken pox, rubella, scarlet fever, stomatitis, tonsillitis, otitis media, URI, sinusitis, infectious mononucleosis, cellulitis, congenital infections, poliomyelitis, tetanus
  - Serious Infections:
    - Meningitis, encephalitis, osteomyelitis, tuberculosis, brucellosis, malaria, leishmaniasis, HIV infection
  
- 2.1.9 Gastroenterology and hepatology
  - Acute diarrhea (etiology, management)
  - Chronic diarrhea (clinical approach)
  - Childhood liver diseases (infantile cholestasis, hepatitis, liver failure and metabolic liver disease)
  
- 2.1.10 Respiratory disorders
  - Upper respiratory tract infections e.g.:
    - Croup
    - Epiglottitis
    - Bronchiolitis
    - Pneumonia (exclude tuberculosis)
    - Obstructive airway diseases (asthma and others)
  - Lower respiratory tract disorders e.g.
    - Immobile cilia syndrome
    - Bronchiolitis obliterans
    - Emphysema
  
- 2.1.11 Congenital and acquired heart diseases
  - Common congenital defects
  - Rheumatic fever
  - Infective endocarditis
  - Heart failure
  
- 2.1.12 Hematology
  - Common hematological problems (anemias)
  - Disorders of hemostasis

- 2.1.13 Oncology
  - Pediatric malignancies
  - Side effects of chemotherapy
- 2.1.14 Diseases of the urinary system
  - Nephrosis - nephritis - renal failure
  - UTI and obstructive uropathies
- 2.1.15 Fluid, electrolytes and acid base disturbances
- 2.1.16 Neurology
  - Seizure disorders
  - Mental retardation and cerebral palsy
  - Neuromuscular disorders and hypotonia
- 2.1.17 Endocrine disorders
  - Ambiguous genitalia, puberty, thyroid disorders
  - Polydipsia, polyuria and hypoglycemia
- 2.1.18 Growth
  - Normal
  - Abnormal
- 2.1.19 Dermatology
  - Description
  - Neonatal skin rashes
  - Dermatitis
  - Skin infections
- 2.1.20 Pediatric surgery
- 2.1.21 Emergency
  - Coma
  - Shock
  - Burns
- 2.1.22 Poisoning
  - Treatment
  - Prevention
  - Environmental hazards

## **2.2. Clinical teaching**

### **2.2.1 Formal teaching**

During the first week of clinical teaching, 7 sessions are spent in demonstration of pediatric history taking and physical examination of the different systems. During the subsequent weeks, 3 bedside teaching sessions are conducted by a teaching staff each week. One of these is utilized as a supervised ward round on all the patients followed by the students.

### 2.2.2. Ward/Block clinical rotations

During rotations, students are divided into small groups of 3-5 students each. They rotate through:

(i) **Ward**

2-3 weeks are spent in the ward whereby the student is expected to function as a “subintern” with direct involvement in patient care. They are expected to clerk patients, observe different aspects of inpatient care and share in the daily ward rounds with the house staff..

(ii) **Blocks**

The rest of the time is spent rotating through different blocks including : well baby clinic, NICU & postnatal ward; consultant clinics, pediatric primary care and Pediatric ER.

### 2.3 Attending the continuous medical education in the department

## 3. Evaluation of students

During each rotation, medical students will be evaluated by:

(1) Continuous assessment evaluation – which holds 40% of the total marks and consists of:

- (a) Bedside teaching evaluation
- (b) Clerking of clinical cases
- (c) Written examination (MCQs)
- (d) Clinical examination

(2) Final examination – which holds 60% of the total marks and consists of:

- (a) Written examination (MCQs) - 20%
- (b) Clinical examination - 40%

### Recommended Books:

#### Reference Texts:

1. Textbooks of Pediatrics – Nelson, Editors – R. Behrman, 14<sup>th</sup> edition, 1991
2. Principles and Practice of Pediatrics – F. Oski, 1990.

#### Physical Examination:

1. Clinical Methods in Pediatric Diagnosis – Balu H. Athreya\*
2. Basic Development Screening – Illingworth
3. Pediatric Clinical Skills – Richard Goldbloom – 1992
4. Pediatric Physical Diagnosis – Artherya and Silvermann
5. Pediatric Clinical Examination – Gill and O’Brien

**General Textbooks:**

1. Nelson's Essential Pediatrics, 1989, W.B. Saunders\*
2. Essential Pediatrics – D. Hull, Churchill Livingstone
3. Synopsis of Pediatrics – J. Hughes
4. Core Textbooks of Pediatrics – Kaye, Oski, Barnes, 1989

**Manuals:**

1. Manual of Pediatric Therapeutics – Graet, Cane
2. Manual of Clinical Problems in Pediatric – Roberts

**Handbooks:**

1. Harriet Lane Handbook\*
2. Pediatric Pearls – Rosenstein/Fosarelli\*
3. Hospital for Sick Children Handbook
4. Handbook of Pediatrics – Henry Kempe.

\*available at University Bookstore