POS 312
PRE-CLINICAL PEDIATRIC DENTISTRY
Thursday, 8:00 – 12:00 noon [GUC]
Academic Year 2015G [1436H]

Course Director : Dr. Zain Z. Hafiz [GUC]

Course Contributors:
Dr. Asma Al-Jobeir
Dr. Nouf Al-Hammad
Dr. Nourah Al-Essa
Dr. Rehab Allam
Dr. Rasha Al-Dabaan
Dr. Manal Al-Mutairi
Dr. Majdah Al-Homidhi
Dr. Latifah Al-Howaish
Dr. Tahani Azizalrahman

Course Number : 312
Course Code : POS
Credit Hour : Three (3) Credit Hours
Pre-Requisite Course : 213 RDS
Location in the Curriculum : Third Year
Required Textbook : Pediatric Dentistry:
Infancy Through Adolescence
By: Jimmy Pinkham
Course Description:

This is a three credit-hour course made up of both Didactic and Laboratory technique to constitute pre-clinical Pediatric Dentistry. The course holds in the second half of the third year.

The primary goals of Pediatric Dentistry include the diagnosis and prevention of disease, the preservation of the natural dentition and the restoration of health, function and esthetics of stomatognathic system. The lectures will cover all these topics.

The primary function of the laboratory is the development of psychomotor skills of the dentist. The psychomotor skills must be highly developed in order to provide quality care of the children.

Due to the high degree of skill required, disappointments and frustrations may occur during the process of learning and development. Some students, for example, will need to repeat various projects. However, the pre-clinical laboratory is the place where mistakes can occur without damage to the patient, and where skills can be developed to a high level of proficiency.

In order to maximize the benefits of each laboratory session, students will be expected to study the laboratory manual preparation for each project.

Course Objectives:

Upon completion of this course, the student should be able to:

• Describe morphological characteristics of primary dentition (1.3)
• Prepare cavities in primary teeth and place restorations effectively so as to restore anatomical landmarks (1.3)
• Diagnose dental caries in primary dentition (2.1)
• Explain preventive measures against dental diseases in children. (2.1)
• Preserve the natural dentition and restore health, function, and esthetics of decayed primary dentition (1.3)
• Demonstrate manual dexterity required to provide quality dental care for children (5.1)

Recommended Textbook:

i) Every student is required to purchase the recommended textbook.

ii) Lectures will be given from the book; students are required to read the assigned chapters for every lecture. The lecture may not cover everything. Examinations will be from the lectures and respective chapters in the textbooks.
**Attendance:**

Students MUST attend all lectures and laboratory exercises, and be ON TIME. Student who fails to attend a lecture/lab., he/she must report to the COURSE DIRECTOR the reason behind his/her absence. Any student who fails to attend 75% of the lectures/laboratory exercises will not be allowed to sit for the FINAL EXAMINATION. No excuse whatsoever.

**Grading:**

- **Didactic** - 50%
- **Laboratory** - 50%

Students MUST pass both parts individually to pass the course. If a student passes the didactic but fails the laboratory part, or vice versa, he/she will not pass the course.

**Didactic (50%):**

The evaluation for the lecture part will be as the following:

- Mid-Term Exam [Essay/short note questions] (15%)
- Final Exam [Multiple choice questions and Essay/Short note] (25%)
- Quizzes (10%)

**Laboratory (50%):**

The evaluation for the laboratory projects will be as the following:

- Weekly projects /Cleanliness of the cubicle/Behavior 25%
- Midterm exam [specific lab procedure] 10%
- Final Exam [specific lab procedure / spot exam] 15%

**Quizzes:**

During the course, weekly quizzes will be given at the beginning of the lecture which includes (previous lecture and laboratory project for the same day). Failure to participate attracts zero mark.
Course Outline [DIDACTIC]:

- Development and morphology of the primary dentition.
- Dental caries in the child and adolescent
- Restorative Dentistry
  - I : Posterior Restorations
  - II : Anterior Restorations
  - III : Stainless Steel Crowns
- Pulp therapy for the primary dentition.
- Local anesthesia and the use of the rubber dam.
- Prevention of dental diseases.
- Space maintenance in the primary dentition.
- Oral habits.
- Examination of the child patient.

Course Outline [LABORATORY] Operative Technique:

The following procedures shall be carried out by students in the Phantom Head Laboratory on ivorene or natural teeth.

- Occlusal cavity # 54
- Occlusal cavity # 84
- Occluso-lingual (OL) # 55
- Mesio-occlusal (MO) # 55
- Mesio-occlusal (MO) # 85
- Disto-occlusal (DO) # 74
- Forming and placing T-band matrix
- Preventive resin restoration Permanent molar / premolar
- Stainless steel crown preparation # 75
- Pulpotomy (Primary molar) Extracted tooth
- Composite crown (Strip) # 61
- Fissure sealant (Permanent Molar) Extracted tooth
- Fluoride application Demonstration
- Extraction techniques in children Demonstration
- Space maintainer Demonstration (Band selection and adaptation)
### Lecture Outline

**January – May 2015**
**Thursday, 8:00 – 9:00 am**

**Course Director:** Dr. Zain Z. Hafiz [GUC]

**Course Contributors:**
- Dr. Al-Jobair
- Dr. Al-Hammad
- Dr. Al-Essa
- Dr. Allam
- Dr. Al-Mutairi
- Dr. Al-Homaidhi
- Dr. Al-Howaish
- Dr. Aziz Alrahman

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<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Lecturer</th>
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<tr>
<td>1</td>
<td>29 January</td>
<td>Introduction and course requirements</td>
<td>Dr. Hafiz</td>
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<tr>
<td>2</td>
<td>5 February</td>
<td>Development and morphology of the primary teeth&lt;br&gt;(McDonald, Ch. 4)</td>
<td>Dr. Aziz Alrahman</td>
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<tr>
<td>3</td>
<td>12 February</td>
<td>Restorative Dentistry for the Primary Dentition I&lt;br&gt;(Cl I, Cl II)&lt;br&gt;(Pinkham, Ch. 21)</td>
<td>Dr. Al-Jobair</td>
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<td>4</td>
<td>19 February</td>
<td>Restorative Dentistry for the Primary Dentition II&lt;br&gt;(Cl III, Cl V)&lt;br&gt;(Pinkham, Ch. 21)&lt;br&gt;Use of rubber dam in pediatric restorative dentistry&lt;br&gt;(Pinkham, Ch. 21)</td>
<td>Dr. Hafiz</td>
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<tr>
<td>5</td>
<td>26 February</td>
<td>Dental caries in the child and adolescent&lt;br&gt;(McDonald, Ch. 10)</td>
<td>Dr. Allam</td>
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<td>6</td>
<td>5 March</td>
<td>Prevention of dental disease&lt;br&gt;(Pinkham, Ch. 14)</td>
<td>Dr. Al-Essa</td>
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<td>7</td>
<td>12 March</td>
<td>MID-TERM EXAMINATION</td>
<td>Dr. Hafiz</td>
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<td>8</td>
<td>19 March</td>
<td>Restorative Dentistry for the Primary Dentition III&lt;br&gt;(SSC and strip crowns)&lt;br&gt;(Pinkham, Ch. 21)</td>
<td>Dr. Al-Howaish</td>
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<td>9</td>
<td>22-28 March</td>
<td>MID-SEMESTER BREAK</td>
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<td>10</td>
<td>2 April</td>
<td>Space maintenance in the primary dentition&lt;br&gt;(Pinkham, Ch. 25)</td>
<td>Dr. Al-Homaidhi</td>
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<tr>
<td>11</td>
<td>9 April</td>
<td>Pulp therapy for the primary dentition&lt;br&gt;(Pinkham, Ch. 22)</td>
<td>Dr. Hafiz</td>
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<td>12</td>
<td>16 April</td>
<td>Oral Habits</td>
<td>Dr. Al-Hammad</td>
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<td>13</td>
<td>23 April</td>
<td>Pain perception control&lt;br&gt;(Pinkham, Ch. 7 and Ch. 28)</td>
<td>Dr. Al-Mutairi</td>
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<tr>
<td>14</td>
<td>30 April</td>
<td>Examination of the mouth and other relevant structures&lt;br&gt;(McDonald, Ch. 1)</td>
<td>Dr. Al-Dabaan</td>
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<td>15</td>
<td>7 May</td>
<td>Revision</td>
<td>Dr. Hafiz</td>
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# Pre-Clinical Pediatric Dentistry
## SECOND HALF OF ACADEMIC YEAR 2015G [1436H]
### Laboratory Procedures
**January – May 2015**
**Thursday, 9:00 – 11:30 am, Phantom Lab**

**Course Director:** Dr. Zain Z. Hafiz [GUC]

**Course Contributors:** Dr. Al-Jobair, Dr. Al-Hammad, Dr. Al-Essa, Dr. Allam, Dr. Al-Mutairi, Dr. Al-Homaidhi, Dr. Al-Howaish, Dr. Azizalrahman

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<th>Date</th>
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<tr>
<td>29 January</td>
<td>Introduction</td>
<td>Tooth identification system</td>
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<tr>
<td>5 February</td>
<td>Class I cavity preparation</td>
<td>Occ. # 54, # 84</td>
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<td>12 February</td>
<td>Modified class I prep. &amp; Class II cavity prep.</td>
<td>OL # 55, MO # 55</td>
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<td>19 February</td>
<td>Class II cavity preparation</td>
<td>MO # 85, DO # 74</td>
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<td>26 February</td>
<td>Forming and placing T-band matrix Make up session</td>
<td>OL # 55, OD # 74, MO # 85</td>
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<tr>
<td>5 March</td>
<td>Stainless Steel Crown (SSC) preparation</td>
<td># 75</td>
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<tr>
<td>12 March</td>
<td>Strip Crown Preparation</td>
<td># 61</td>
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<tr>
<td>19 March</td>
<td>MID-TERM EXAMINATION</td>
<td>TO BE ASSIGNED</td>
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<td></td>
<td><strong>21–29 MARCH 2013 MID-SEMESTER BREAK</strong></td>
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<tr>
<td>2 April</td>
<td>SSC fitting and adaptation, restoration of strip crown preparation</td>
<td># 75, #61</td>
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<tr>
<td>9 April</td>
<td>Pulpotomy</td>
<td>Ext. primary molar</td>
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<td>16 April</td>
<td>Band selection, adaptation and impression for space maintainer</td>
<td># 85 → # 83</td>
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<tr>
<td>23 April</td>
<td>Topical fluoride application and extraction techniques in children.</td>
<td>#55, #74, #85</td>
</tr>
<tr>
<td>30 April</td>
<td>Make up session</td>
<td>Incomplete projects</td>
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312 POS
PRE-CLINICAL PEDIATRIC DENTISTRY

Week 1: Lecture
INTRODUCTION AND COURSE REQUIREMENTS
Course description, Course objectives, Text books, Attendance, Grading Criteria, Didactic and laboratory projects outline.

Week 2: Lecture
DEVELOPMENT AND MORPHOLOGY OF THE PRIMARY TEETH
(McDonald, Chapter 4, page 52)
Life cycle of the tooth. Early development and calcification of anterior primary teeth. Early development and calcification of posterior primary teeth and the first permanent molar. Morphology of individual primary teeth. Morphologic differences between primary and permanent teeth. Size and morphology of the primary tooth pulp chamber.

Week 3: Lecture
RESTORATIVE DENTISTRY FOR THE PRIMARY DENTITION I (CI I, CI II)
(Pinkham, Chapter 21, page 313)
Restoration of primary molars. Composite resin restorations.

Week 4: Lecture
RESTORATIVE DENTISTRY FOR THE PRIMARY DENTITION I (CI III, CI V)
(Pinkham, Chapter 21, page 331)
Restoration of primary incisors and canines. Indications for restoration of primary incisors and canines, class III resin restorations. Class V restorations for incisors and canines.

USE OF RUBBER DAM IN PEDIATRIC RESTORATIVE DENTISTRY
(Pinkham, Chapter 21, page 311)
Advantages for use of rubber dam (RD). Contraindication for use of RD. Preparing and placement of the RD. Removing the RD.

Week 5: Lecture
DENTAL CARIES IN THE CHILD AND ADOLESCENT
(*McDonald, Chapter 10, page 209*)


Week 6: Lecture
PREVENTION OF DENTAL DISEASE
(*Pinkham, Chapter 14, page 195*)


Week 7: MID-Term Examination

Week 8: Lecture
RESTORATIVE DENTISTRY FOR THE PRIMARY DENTITION III
(*Pinkham, Chapter 2*)

Use of stainless steel crown (SSC). Types and indications for use of SSC. Steps of preparation and placement of SSC to primary molars. Special considerations for SSC. Placement of adjacent crowns. Preparing crowns in areas of space loss. Full coronal coverage of anterior teeth.

Week 9: MID SEMESTER BREAK

Week 10: Lecture
SPACE MAINTENANCE IN THE PRIMARY DENTITION
(*Pinkham, Chapter 25, page 385*)


Week 11: Lecture
PULP THERAPY FOR THE PRIMARY DENTITION
(*Pinkham, Chapter 22, page 341*)


Week 12: Lecture
ORAL HABITS
(Pinkham, Chapter 26, page 393)


Week 13: Lecture
PAIN PERCEPTION CONTROL (LOCAL ANESTHESIA)
(Pinkham, Chapter 7, page 85; Chapter 28, page 411)


Week 14: Lecture
EXAMINATION OF THE MOUTH AND OTHER RELEVANT STRUCTURES
(McDonald, Chapter 1, page 1)