222 PCS
Preventive Dentistry

Course Directors:  Dr. A. Al-Swuailem [DUC] and Dr. S. Al-Sadhan [MUC]
Course coordinators:  Dr. M. Al-Saif           and           Dr. A. Bin Rahmah

FIRST SEMESTER

A.  Purpose:

To provide dental students with an understanding of concepts, principles and methods of prevention of dental diseases with emphasis on primary preventive measures.

B.  Course Organization:

1. Class activities will be in the form of lectures and discussions.
2. Demonstration of some primary preventive procedures will be conducted.
3. Library readings will be assigned on certain topics.

C.  General Instructional Objectives:

At the end of the course, the students should understand the following:

1. Basic concepts and principles of preventing dental diseases.
2. Factors involved in the causation of dental caries and periodontal diseases.
3. Different measures for primary prevention of the common dental diseases (dental caries and periodontal diseases).

D.  Reading:

Required Textbook :  Primary Preventive Dentistry, 6th Edition 2003
By:  Norman O. Harris

E.  Grading:

5%  -  Attendance and class participation
5%  -  Take-Home exams
5%  -  Two oral exams
35%  -  Midterm examination
50%  -  Final examination
Class participation and take-home exams are meant to increase students' involvement in this class. This participation should improve the learning experience of students. Exams in this class are structured to test the knowledge gain of each student. The main objective of this class is to ensure that each student understand major concepts addressed in this class.

F. **Attendance:**

Pleased be reminded absentees will be recorded for all students whom their names appears on the class list. If any student is absent for more than 25% of the total lectures, he/she will not be permitted to sit for the final examination. Students who came 10 minutes late for the lecture their attendance will not be taken for that lecture.’

G. **Credit Hour - 1.0**
# Lecture Schedule

**FIRST HALF ONLY OF ACADEMIC YEAR 2010/2011**

**LECTURE SCHEDULE**

**222 PCS**

**Saturday, 10:00 – 11:00 am, Rm. 102 (MUC)**

**Sunday, 9:00 – 10:00 am, Rm. 03/GA (DUC)**

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Date</th>
<th>Campus</th>
<th>Topic</th>
<th>Lecturer</th>
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<tr>
<td></td>
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<td>Introduction to the course.</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<tr>
<td>1</td>
<td>26/9/2010</td>
<td>MUC</td>
<td>Concepts and Principles of Preventive Dentistry&lt;br&gt;Harris, Chap. 1</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>2</td>
<td>3/10/2010</td>
<td>MUC</td>
<td>Bacterial Plaque&lt;br&gt;Harris, Chap. 2</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>3</td>
<td>10/10/2010</td>
<td>MUC</td>
<td>Common Dental Diseases&lt;br&gt;Harris, Chap. 3 &amp; 4</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>4</td>
<td>17/10/2010</td>
<td>MUC</td>
<td>Plaque Control Measures I&lt;br&gt;Harris, Chap. 5</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>5</td>
<td>24/10/2010</td>
<td>MUC</td>
<td>Plaque Control Measures II&lt;br&gt;Harris, Chap. 6</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>6</td>
<td>31/10/2010</td>
<td>MUC</td>
<td>Dentifrices and Mouth Rinses&lt;br&gt;Harris, Chap. 7</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>7</td>
<td>7/11/2010</td>
<td>MUC</td>
<td>MIDTERM EXAMINATION</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>8</td>
<td>28/11/2010</td>
<td>MUC</td>
<td>The Uses of Fluoride I&lt;br&gt;Harris, Chap. 8 &amp; 9</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Ben Rahamha</td>
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<td>9</td>
<td>5/12/2010</td>
<td>MUC</td>
<td>The Uses of Fluoride II&lt;br&gt;Harris, Chap. 8 &amp; 9</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Saif</td>
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<td>10</td>
<td>12/12/2010</td>
<td>MUC</td>
<td>Pit and Fissure Sealants&lt;br&gt;Harris, Chap. 10</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>11</td>
<td>19/12/2010</td>
<td>MUC</td>
<td>Caries Activity Testing&lt;br&gt;Harris, Chap. 12</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>12</td>
<td>26/12/2010</td>
<td>MUC</td>
<td>Nutrition and Oral Health&lt;br&gt;Harris, Chap. 14 &amp; 15</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>13</td>
<td>2/1/2011</td>
<td>MUC</td>
<td>Diet and Dental Caries&lt;br&gt;Harris, Chap. 14 &amp; 15</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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<td>14</td>
<td>9/1/2011</td>
<td>MUC</td>
<td>Dental Public Health Program&lt;br&gt;Harris, Chap. 17</td>
<td>Dr. Halawany</td>
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<td>15</td>
<td>16/1/2011</td>
<td>MUC</td>
<td>FINAL EXAMINATION</td>
<td>Dr. Sadhan&lt;br&gt;Dr. Al-Swuailem</td>
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**SESSION OUTLINE**

**222 PCS**
Session 1  :  Introduction to Preventive Dentistry
Lesson Contents  :
1. Why preventive dentistry?
2. Philosophy of preventive dentistry.
3. Prevention in treatment planning.
4. Attitudes of the dental profession toward prevention.

Session 2  :  Concepts and Principles of Preventive Dentistry
Lesson Contents  :
1. Definitions of prevention.
2. Levels of prevention.
3. Scope of preventive dentistry.
   a. Control of disease
   b. Patient education and motivation
   c. Development of host resistance
   d. Restoration of function
   e. Maintenance of oral health

Session 3  :  Development of Dental Plaque, and its Role in Oral Diseases
Lesson Contents  :
1. Bacterial colonization of the mouth
2. Dental plaque formation
3. Dental plaque metabolism
4. Dental calculus

Session 4  :  Common Dental Diseases: Dental Caries and Periodontal Diseases
Lesson Contents  :
1. Dental caries – Definition and Epidemiology
2. Periodontal Disease Definition and Epidemiology
3. Role of dental plaque in the etiology and progress of dental caries and periodontal disease.

Session 5  :  Plaque Control: Oral Hygiene techniques and home care.
Lesson Contents  :
1. The preventive equipments
2. Plaque detection and disclosing agents
3. The toothbrush
4. Methods of toothbrushing

Lesson 6  :  Personal Oral Hygiene: Auxiliary measures to complement toothbrushing.
Lesson Contents :
1. Why Supplemental Oral Hygiene is needed.
2. Factors that influence selection of supplemental oral hygiene devices.
3. Purposes, indication, contra-indication, techniques of using the following oral hygiene devices.
   a. Dental floss
   b. Dental floss holiter
   c. Dental floss threader
   d. Knitting Yarn
   e. Pipe Cleaner
   f. Gauze Strip
   g. Interdental Tip Stimulator
   h. Wedge Stimulator
   i. Toothpick
   j. Toothpick holder

Session 7 : Plaque Control: Dentifrices and Mouthrinses
Lesson Contents :
1. Definitions of dentifrices and mouthrinses.
2. Functions of dentifrices and mouthrinses.
3. Ingredients of dentifrices and mouthrinses
4. Therapeutic dentifrices and mouthrinses
5. Dentifrices with specialized functions.
6. Some general considerations in the use of fluoride dentifrices and mouthrinses.

Session 8 : MIDTERM EXAMINATION

Sessions 9 & 10 : Measures of Primary Prevention: The Uses of Fluoride Therapy
Lesson Contents :
1. Historical aspects of fluorides
2. Systemic fluoride and dental caries
3. Physiology and metabolism of fluoride
4. Availability of fluoride
5. Human sources of fluoride intake
6. Mechanism of action of fluoride
7. Epidemiology studies in natural and artificial water fluoridation
8. Fluoride supplementation

Session 11 : Measures of Primary Prevention: Pit and Fissure Sealants
Lesson Contents :
1. Background in sealants
2. Criteria for selecting teeth for sealants placement
3. Steps in the placement of either light cured or autopolymerizing sealants
4. Options for preventive dentistry restoration
5. Barriers to sealant usage

Session 12
(CST)
Lesson Contents:
1. Describe caries susceptibility test
2. Reasons for conducting caries susceptibility test
3. The methods of caries susceptibility testing
4. Interpretation of results

Session 13
Lesson Contents:
1. Definition of diet and nutrition
2. Effects of nutrition on oral health
4. Effects of nutrition on the different stages of developing teeth and other structures.
5. Commonly encountered nutritional problems
6. Preventive measures for commonly encountered nutritional problems.

Session 14
Lesson Contents:
1. Effects of diet on dental health
2. Differentiate the effects of nutrition and diet on dental health
3. Factors that contribute to cariogenicity of food
4. Epidemiological evidences that prove the cariogenicity of sugars
5. The role of diet in growth and metabolism of dental plaque

Session 15
Lesson Contents:
1. Define Public Health and cite the criteria necessary to develop successful dental public health program.
2. Levels of Public Health Operations
3. Dental Public Health Methods
4. Outline the scope of traditional dental public health program
5. List the various political levels that maintain and support public health

Session 16
Lesson Contents:
1. Oral Health Promotion in Schools
Lesson Contents:
1. Why general oral health school programs are needed.
2. School-based preventive dental program.
3. Reason school-based dental program should target “high-risk” students.
4. Role of dentist and dental hygienist on preventive program.