



King Saud University, College of Dentistry
Department of Periodontics and Community Dentistry
DIVISION OF COMMUNITY DENTISTRY

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:

Please 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

FIRST HALF ONLY OF ACADEMIC YEAR 2010/2011

LECTURE SCHEDULE

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

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

Session No.	Date	Campus	Topic	Lecturer
1	26/9/2010	MUC DUC	Introduction to the course.	Dr. Sadhan Dr. Al-Swuailem
2	3/10/2010	MUC DUC	Concepts and Principles of Preventive Dentistry Harris, Chap. 1	Dr. Sadhan Dr. Al-Swuailem
3	10/10/2010	MUC DUC	Bacterial Plaque Harris, Chap. 2	Dr. Sadhan Dr. Al-Swuailem
4	17/10/2010	MUC DUC	Common Dental Diseases Harris, Chap. 3 & 4	Dr. Sadhan Dr. Al-Swuailem
5	24/10/2010	MUC DUC	Plaque Control Measures I Harris, Chap. 5	Dr. Sadhan Dr. Al-Swuailem
6	31/10/2010	MUC DUC	Plaque Control Measures II Harris, Chap. 6	Dr. Sadhan Dr. Al-Swuailem
7	7/11/2010	MUC DUC	Dentifrices and Mouth Rinses Harris, Chap. 7	Dr. Sadhan Dr. Al-Swuailem
	(10/11/2010 - 22/11/2010)		HAJJ BREAK	
8	28/11/2010	MUC DUC	MIDTERM EXAMINATION	Dr. Sadhan Dr. Al-Swuailem
9	5/12/2010	MUC DUC	The Uses of Fluoride I Harris, Chap. 8 & 9	Dr. Sadhan Dr. Ben Rahamha
10	12/12/2010	MUC DUC	The Uses of Fluoride II Harris, Chap. 8 & 9	Dr. Sadhan Dr. Al-Saif
11	19/12/2010	MUC DUC	Pit and Fissure Sealants Harris, Chap. 10	Dr. Sadhan Dr. Al-Swuailem
12	26/12/2010	MUC DUC	Caries Activity Testing Harris, Chap. 12	Dr. Sadhan Dr. Al-Swuailem
13	2/1/2011	MUC DUC	Nutrition and Oral Health Harris, Chap. 14 & 15	Dr. Sadhan Dr. Al-Swuailem
14	9/1/2011	MUC DUC	Diet and Dental Caries Harris, Chap. 14 & 15	Dr. Sadhan Dr. Al-Swuailem
15	16/1/2011	MUC DUC	Dental Public Health Program Harris, Chap. 17	Dr. Halawany
			FINAL EXAMINATION	Dr. Sadhan Dr. Al-Swuailem

SESSION OUTLINE

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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.
		4. Principles 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 holder
 - 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)** : Measures of Primary Prevention: Caries susceptibility Test
- 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
 - 5. Application of CST in primary prevention of dental caries.
- Session 13** : Measures of Primary Prevention: Nutrition and Oral Health
- Lesson Contents** :
- 1. Definition of diet and nutrition
 - 2. Effects of nutrition on oral health
 - 3. Nutrients necessary for promotion of 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** : Measures of Primary Prevention: Diet and Dental Caries
- 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** : Dental Public Health Program
- 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** : Oral Health Promotion in Schools

Lesson Contents

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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.