



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

LAST REVIEW: 2006-7 **NEXT REVIEW:** 2011-12 **STATUS:** A

COURSE TITLE: PREVENTIVE DENTISTRY

COMMON COURSE NUMBER: DES 0844

CREDIT HOURS: n/a

CONTACT HOUR BREAKDOWN
(per 16 week term)

CLOCK HOURS: 40
(Voc. Course ONLY)

Lecture: 2.5 hours Lab: n/a

Clinic: n/a Other: n/a

PREREQUISITE(S): n/a

COREQUISITE(S): DEA 0025, DEA 0025L

PRE/COREQUISITE(S):

COURSE DESCRIPTION: Emphasis is placed on the development of a plaque control program to meet individual patient needs. Materials on methods of toothbrushing, supplementary aids for oral physiotherapy, the use of fluorides and nutritional counseling in preventive dentistry will be presented

UNIT TITLES

1. Overview of Preventive Dentistry
2. Dental Plaque and the Gingiva
3. Toothbrushes and Toothbrushing Techniques
4. Supplemental Aids
5. Dental Calculus
6. Stains
7. Dental Caries
8. Periodontal Disease
9. Nutrition
10. Dietary Counseling
11. Fluoride
12. Comprehensive Dental Disease Control Program



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ASSESSMENT:

Tests	50%
Test I-Overview, Plaque, and Gingiva	
Test II-Toothbrushing/Supplemental Aids/Calculus	
Test III-Stains/Caries/Perio	
Test IV-Nutrition/Nutritional Counseling/Fluoride	
Bulletin Board	5%
Participation	5%
Required Projects	20%
Case Study	
Plaque Biofilm	
Homework	
Final Examination	20%

The student's letter grade for this course will be determined by the departmental percentage scale:

92 - 100 = A

83 - 91 = B

75 - 82 = C

66 - 74 = D

F



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UNITS

Unit 1 Overview of Preventive Dentistry

General Outcome:

- 1.0 The student shall:** Describe the role of the dental assistant as a dental health educator in a preventive dental practice

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1** Discuss the primary goal of preventive dentistry.
- 1.2** Explain the major concern of preventive dentistry and the costs of dental neglect.
- 1.3** Define the conditions preventive dentistry can eliminate.
- 1.4** Discuss the range of services provided by the dental team.



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Unit 2 Dental Plaque and the Gingiva

General Outcome:

2.0 The student shall: Discuss the etiology of dental plaque, its relationship to dental disease and the dental assistant's role in "plaque control".

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Contrast the appearance of normal health gingiva versus the appearance of diseased gingiva.
- 2.2 List the soft deposits associated with the oral cavity.
- 2.3 Define the "acquired pellicle" and its characteristics.
- 2.4 Specify the relationship of "acquired pellicle" to dental plaque.
- 2.5 Discuss dental plaque: its etiology, its significance and the bacterial succession involved in its maturation process.
- 2.6 Compare and contrast subgingival and supragingival plaque.
- 2.7 Explain the rationale for plaque control.
- 2.8 Differentiate between materia alba and food debris.
- 2.9 Describe the basic differences between gingivitis and periodontitis.
- 2.10 Identify the bacteria in a specimen of bacterial plaque.



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Unit 3 Toothbrushes and Toothbrushing Techniques

General Outcome:

3.0 The student shall: State the criteria for selection of a toothbrush and demonstrate the correct toothbrushing techniques.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 3.1 Specify the criteria for selection of a toothbrush.
- 3.2 Give the basic purpose/s of toothbrushing.
- 3.3 Name the categories of patients that benefit the most from powered toothbrushes.
- 3.4 Compare the advantages of a soft vs. a hard toothbrush.
- 3.5 Name the accepted techniques of toothbrushing.
- 3.6 List the advantages and disadvantages of each technique.
- 3.7 Demonstrate each of the toothbrushing techniques on a manikin/fellow student.
- 3.8 Define: abrasion, erosion and attrition.
- 3.9 Specify the useful life of a toothbrush.



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Unit 4 Supplemental Aids

General Outcome:

- 4.0 **The student shall:** Describe the supplemental aids available stating their uses and advantages.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 4.1 Explain the rationale for flossing, as an adjunct to dental disease control.
- 4.2 Describe accepted flossing techniques and demonstrate on a manikin/fellow student.
- 4.3 Discuss flossing under a fixed bridge.
- 4.4 Identify the possible effects of incorrect flossing.
- 4.5 Compare unwaxed floss and waxed floss.
- 4.6 Define the term "dentifrice" and give reasons for its use.
- 4.7 Discuss the ingredients and their actions in a dentifrice.
- 4.8 Give examples of dentifrices that have been labeled "acceptable" and "non-acceptable."
- 4.9 Identify the primary purpose of disclosing agents.
- 4.10 Specify additional supplemental aids for maintaining health and demonstrate their use.
- 4.11 Identify oral health aids for patients with limited manual dexterity.
- 4.12 Differentiate the active ingredients: antimicrobial, oxygenating, astringents, anodynes, buffering, and deodorizing in a mouthwash.



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Unit 5 Dental Calculus

General Outcome:

5.0 The student shall: Describe the components of dental calculus and its effect on the periodontium.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 5.1 Define "dental calculus."
- 5.2 List the characteristics of dental calculus.
- 5.3 Explain the significance of calculus to periodontal disease.
- 5.4 Discuss the importance of an "oral prophylaxis."



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Unit 6 Stains

General Outcome:

6.0 The student shall: Identify extrinsic and intrinsic stains on the dentition and their etiology

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 6.1 Contrast the difference between extrinsic stain and intrinsic stain.
- 6.2 Name the three ways stains are acquired.
- 6.3 List the five most common extrinsic stains.
- 6.4 Describe the etiology and removal of extrinsic stains.
- 6.5 List the most common intrinsic stains and their etiology.



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Unit 7 Dental Caries

General Outcome:

7.0 The student shall: Define dental caries and the sequence of events leading to demineralization

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 7.1 Define the term "dental caries".
- 7.2 Give the requirements for the development of initial dental caries.
- 7.3 Specify the prime bacteria implicated in dental caries.
- 7.4 Discuss the steps in the decay process.
- 7.5 Differentiate between rampant, incipient and recurrent caries.
- 7.6 Describe the relationship of diet to dental caries.
- 7.7 Explain remineralization therapy in clinical and layman's terms.
- 7.8 Explain the benefits of xylitol in terms of caries reduction.



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Unit 8 Periodontal Disease

General Outcome:

8.0 The student shall: Describe periodontal disease in relation to the signs, stages and related bacteria.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 8.1 Define the term "periodontal disease".
- 8.2 Describe the warning signs of periodontal disease.
- 8.3 Specify the bacteria associated with periodontal disease.
- 8.4 Discuss the relationship of occlusal forces to bone loss.
- 8.5 Describe the relationship between the teeth, the gums and the bone.
- 8.6 Differentiate the five stages of periodontal disease.



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Unit 9 Nutrition

General Outcome:

9.0 The student shall: Specify the key nutrients needed by the body for optimum health and relate this to dental health.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 9.1 Describe the role of the dental assistant in nutritional counseling in the preventive dental practice.
- 9.2 Discuss the basic chemical make-up, functions, and sources of carbohydrates.
- 9.3 List diseases related to a diet with a carbohydrate deficiency, including oral manifestations.
- 9.4 Discuss the basic chemical make-up, functions, and sources of proteins.
- 9.5 List diseases related to a diet with a protein deficiency, including any oral manifestations.
- 9.6 Discuss the basic chemical make-up, functions, and sources of fats.
- 9.7 List diseases related to a diet with a fat deficiency.
- 9.8 Explain the functions of vitamins.
- 9.9 Name the sources of fat-soluble vitamins and their actions.
- 9.10 List the sources of water-soluble vitamins and their actions.
- 9.11 Give the deficiency symptom/s for the vitamins: A, E, D, K, B complex, and C.
- 9.12 List oral manifestations for a deficiency in vitamins: A, E, D, K, B complex, and C.
- 9.13 List the macrominerals with their functions, sources and deficiency symptoms.
- 9.14 Discuss the importance of calcium and phosphorus as it relates to bone and teeth.
- 9.15 List the three major functions of water.
- 9.16 Name the basic food groups and components of each.



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Unit 10 Dietary Counseling

General Outcome:

10.0 The student shall: State the procedures and guidelines of dietary counseling in dental care.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 10.1 Discuss the purpose of dietary counseling.
- 10.2 Chart your diet diary for one week.
- 10.3 Describe five basic guidelines one should utilize when counseling a patient about nutrition.
- 10.4 List the five stages involved in changing a dietary pattern.
- 10.5 Discuss the following criteria as they relate to preventing damage to teeth:
 - a. When foods are eaten
 - b. Physical characteristics of food
 - c. Frequency of eating
 - d. Time needed to eat food
 - e. When food is eaten
- 10.6 Discuss sample menus for specific patient cases.



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Unit 11 Fluoride

General Outcome:

11.0 The student shall: Discuss the role of fluorides, their actions, effects and benefits to the human dentition.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 11.1 Define and discuss fluoride and its action.
- 11.2 Describe dental fluorosis and specify when it occurs.
- 11.3 Compare the action and benefits of systemic fluoride versus topical fluoride.
- 11.4 Explain how fluoride is used safely.
- 11.5 Specify the lethal dose and make suggestions to minimize toxic reactions.
- 11.6 Describe water fluoridation and suggested minimum-maximum amounts to be added to the water.
- 11.7 Determine when it is applicable to use dietary supplements of fluoride.
- 11.8 List the three most commonly prescribed fluorides and give the chemical name, percent of caries reduction, advantage/s and disadvantage/s.
- 11.9 Name the common dentifrices containing fluoride.
- 11.10 Describe the use of fluoride rinses.
- 11.11 Discuss pit and fissure sealants as an adjunct to fluoride.



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Unit 12 Comprehensive Dental Disease Control Program

ASSIGNMENT:

Given a fictitious patient case history, prepare a Comprehensive Dental Disease Control Program utilizing all material covered in this course as a reference. Presentation must be typed, double-spaced, minimum of five pages.

The required project is part of 20% of the final grade.