

Course Code: DHG 113

Course Title: Introduction to Prevention

Department: Allied Health

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 51.0601

Repeatability: 0

Credit Hours

Catalog Notation: 1-0-1

Credit Hour Distribution:

Lecture: 1

Lab: 0

Clinical: 0

Total: 1

General Course Information

Catalog Description

Introduction to causes and prevention of dental caries and periodontal disease. Student learns to assess patient needs and to provide information for patient self-care.

General Course Objectives

1. Describe the role and ethical obligation of the dental hygienist.
2. Describe the process of biofilm and calculus formation and their effect on the oral tissues.
3. Describe the dental diseases associated with periodontal health, gingivitis, periodontitis and caries.
4. Describe the purposes, techniques, advantages and limitations of toothbrushing techniques, interdental cleaning devices, and dental products.
5. Use motivational interviewing to create and implement a patient oral hygiene education strategy.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 099	Placement out of CCS 099	Placement out of MAT 072

Prerequisites

Credit in BIO 121

Admission into the Dental Hygiene program

Methods of Evaluation

2-3 exams, 4-5 quizzes, 6-7 educational discussions with patient, 1-2 evidence-based projects, 1-2 dentalcare.com courses, and 1 chapter review.

Instructional Materials and Additional Supplies

Darby and Walsh Dental Hygiene Theory and Practice, Current Edition 978-0-323-47719-2

Wilkin's Clinical Practice of the Dental Hygienist, Current Edition 978-1-284-25599-7

Darby's Comprehensive Review of Dental Hygiene, Current Edition 978-0-323-31671-2

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Introduction to Preventive Dentistry	1. Define preventive dentistry. 2. Explain the dental hygienist's role in preventing dental diseases. 3. Describe the dental hygienist's ethical responsibility to the public. 4. List the three levels of preventive dentistry and identify examples of each level. 5. List the dental diseases caused by bacterial biofilm (dental plaque). 6. Explain the control of disease related to bacterial biofilm. 7. Describe the soft deposits that accumulate on the teeth. 8. Describe the areas where bacterial biofilm accumulates. 9. Describe the two types of bacterial biofilm by location. 10. Demonstrate the ability to explain concepts of the dental hygienist's role in preventing dental diseases.	1	0	0
Bacterial Biofilm and Soft Deposits	1. Describe and identify the four soft deposits which are retained on the teeth. 2. Define and explain the significance of acquired pellicle. 3. Describe the formation of dental biofilm. 4. List the predominant bacteria found in dental biofilm at its various stages of maturation. 5. Explain the role of polysaccharides in dental biofilm formation. 6. Describe how dental biofilm is identified. 7. Describe how dental biofilm can be removed. 8. Describe the location of unattached biofilm, attached biofilm, and epithelium-associated biofilm. 9. Demonstrate the ability to explain concepts of biofilm and the effects of oral hygiene on prevention of biofilm.	1	0	0
Dental Calculus	1. Explain the role of dental biofilm in calculus formation and the role of calculus related to biofilm. 2. Define calculus according to location, degree, and extent. 3. Describe the clinical characteristics of supragingival and subgingival calculus. 4. Describe the composition of and the formation process of dental calculus. 5. Explain the sources of minerals for supragingival and subgingival calculus. 6. Recognize calculus on a radiograph. 7. Describe the relationship of dental calculus and dental diseases. 8. Describe the methods for detecting and removing dental calculus. 9. Demonstrate the ability to explain concepts of calculus, the effects of calculus on the periodontal tissues, and biofilm control measures.	1	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Inflammatory Periodontal Diseases and Gingival Disease (Gingivitis)	1. Describe the classifications of periodontal diseases. 2. Define gingivitis. 3. Describe the etiology of gingivitis. 4. Describe the clinical characteristics of gingivitis. 5. Define gingival pocket (pseudo-pocket). 6. Relate the significance of gingival pockets to gingivitis. 7. Relate the significance of gingival crevicular fluid. 8. Describe the significance of the col as related to gingivitis. 9. Describe the dental hygiene treatment of gingivitis. 10. Discuss the progression of gingivitis to periodontitis. 11. Demonstrate the ability to explain concepts of gingivitis including characteristics of healthy gingiva and the significance of bleeding.	1	0	0
Periodontal Diseases (Periodontitis)	1. Define periodontitis, periodontal pocket, and gingival recession. 2. Differentiate between an infrabony (intrabony) and suprabony pocket. 3. Describe the etiology of periodontitis. 4. Describe the clinical characteristics of periodontitis. 5. Describe the progression of a periodontal pocket, if left untreated. 6. Describe the causes of gingival recession. 7. List modifiable and non-modifiable risk factors for periodontitis. 8. Describe the dental hygiene treatment of periodontitis. 9. Identify the microorganism associated with aggressive progression of periodontal disease. 10. Demonstrate the ability to explain concepts of periodontitis, describing pocket formation, factors that contribute to disease development and progression, and risk factors for disease.	1	0	0
Dental Caries and CAMBRA	1. Define dental caries. 2. Describe the relationship between dental biofilm and dental caries. 3. List the major cariogenic bacteria and location where they are predominant. 4. Describe the equation necessary to produce dental caries. 5. Identify the most important protective factor against caries. 6. Explain the etiology of dental caries and the critical pH for demineralization. 7. Describe early childhood caries and identify which teeth give first evidence of decay. 8. Describe root caries and the pH for demineralization of the cementum. 9. Explain the relationship of frequency and consistency of cariogenic foods and salivary flow to acid production and demineralization. 10. Describe how the mother or caregiver can influence a child's susceptibility to caries. 11. Describe the use of xylitol and fluoride in the prevention of caries. 12. Describe CAMBRA and the assessment process for determining dental caries risk. 13. Identify Disease Indicators, Risk Factors, and Protective Factors for CAMBRA. 14. Implement the CAMBRA process to determine product choices for patient education. 15. Relate the patient's risk factors to determine the level of risk as extreme high, high, moderate, or low and determine strategies to reduce risk. 16. Demonstrate the ability to explain preventive strategies to the patient.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Oral Physiotherapy	1. Describe the desirable characteristics of a toothbrush. 2. Describe the characteristics of a natural bristled toothbrush and a nylon bristled toothbrush. 3. Identify which type of bristled toothbrush is recommended. 4. Describe the advantages of a soft nylon multi-tufted toothbrush. 5. Discuss the factors related to tooth brushing sequence. 6. Discuss the objectives of tongue brushing. 7. Describe the effects of improper tooth brushing techniques. 8. Describe the correct care of a toothbrush. 9. Describe the indications for use of the following toothbrushing techniques: Bass, Charters', Stillman's, Modified Stillman's, and Fones. 10. Demonstrate the following toothbrushing techniques: Bass, Charters', Stillman's, and Fones. 11. Describe and differentiate the types of interdental cleaning based on the Type I, II, and III Embrasure space. 12. Describe and demonstrate the following oral self-care adjuncts: floss threader, floss holder, floss pics, rubber tip, tooth-pick-in-holder, interproximal brush, end-tufted brush, balsa-wood wedge, and water flosser. 13. Demonstrate the ability to explain proper toothbrushing and critique patient toothbrushing techniques. 14. Demonstrate the ability to explain proper interdental cleaning products and procedures and critique patient interdental cleaning techniques.	2	0	0
Learning/Assessing Patient Needs	1. Define learning and the affective domain. 2. Diagram the elements of ADPIE. 3. Describe the significance of Social Determinants of Health. 4. Explain key factors or procedures used in assessing the patient. 5. Describe the significance of the biofilm score. 6. Describe the use of clinical findings in determining the dental hygiene diagnosis and planning for patient education. 7. Define health literacy. 8. Describe barriers to healthcare if there is a low level of health literacy. 9. Explain the Teach-Back Method. 10. Describe strategies to improve health communication. 11. List and describe the characteristics of various age groups in regard to learning oral hygiene instruction. 12. Demonstrate critical thinking and analysis by creating a PICO question to identify a systematic review searching Cochrane. 13. Demonstrate the ability to explain the research findings and apply them to the patient's needs. 14. Develop and maintain professional growth and lifelong learning by reading current professional literature. 15. Appraise patient oral care needs by using an evidence-based model for care.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Evaluation/Testing	1. Describe the factors that affect interpersonal communication: perceptions, values, emotions, knowledge, and sociocultural background. 2. Describe the CARE principle for effective communication: Comfort, Acceptance, Responsiveness, and Empathy. 3. Interpret the reasons patients do not make changes in their oral health. 4. Consider the following, as it applies to the student: what motivates them to learn, what gets in the way of their learning, and how they can eliminate any roadblocks to their learning. 5. Describe the strategies of Motivational Interviewing. 6. Describe the role of the dental hygienist as a Motivational Interviewer. 7. List the 5 Stages of Change of the Transtheoretical Model. 8. Demonstrate proficiency in educating a mock patient using the Motivational Interviewing Evaluation. 9. Demonstrate individualization of homecare instruction for all age groups and physical abilities. 10. Demonstrate the ability to choose and suggest homecare products based on assessment, patient's chief complaint, and greatest need. 11. Self-assess the ability to learn and practice effective communication skills.	4	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
15	0	0