

D H 328B: CLINICAL DENTAL HYGIENE THEORY II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2024
Units:	2
Hours:	1 lecture, 3 laboratory per week (48 total per quarter)
Advisory:	Not open to students with credit in D H 75B.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- The student will evaluate patient assessment data and recommend interim therapeutic restorations according to selection criteria.
- The student will gain knowledge on ultrasonic scaler and apply the techniques in clinic settings.

Description

Discussion and demonstration of advanced and supplemental dental hygiene functions, including interim therapeutic restorations, radiographic decision making, and magnetostrictive ultrasonic technology. Supportive course to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 320C. Intended for students in the Dental Hygiene Baccalaureate Degree Program; enrollment is limited to students accepted in the program.

Course Objectives

The student will be able to:

1. Demonstrate placement of interim therapeutic restorations.
2. Analyze patient assessment data and recommend the appropriate type and amount of dental radiographs.
3. Demonstrate appropriate ultrasonic techniques for dental hygiene treatment based on individualized patient needs.
4. Adhere to standard infection and hazard control protocols during all procedures.
5. Apply the principles of law and ethics to the practice of dental hygiene.

Course Content

1. Interim therapeutic restorations (Lec, Lab)
 - a. Rationale for placing interim therapeutic restorations
 - i. History of law AB 1174
 - ii. Role of teledentistry and access to care in California
 - b. Patient and tooth selection criteria
 - i. Proximity of dental caries to dental pulp
 - ii. Presence of dental pain

- iii. Patient cooperation
 - iv. Patient health status
 - v. Prognosis of tooth/teeth
 - vi. Current radiographs
- c. Armamentarium and dental materials for interim therapeutic restorations
 - i. Dental restorative instruments
 - ii. Glass ionomer composite material
 - iii. Tritrator
 - iv. Gauze, cotton rolls, saliva ejector and HVE, vaseline
 - d. Technique
 - i. Preparation of materials and equipment
 - ii. Isolation of working area
 - iii. Preparation of tooth
 - iv. Placement of glass ionomer material
 - v. Evaluation of ITR
 - e. Role of dental consultation
 - f. Patient documentation
 - i. Informed consent
 - ii. Post-operative instructions
 - iii. Potential adverse outcomes
2. Radiographic decision making (Lec, Lab)
 - a. Rationale for the dental hygienist to take dental radiographs prior to an examination by a dentist
 - b. Teledentistry and access to care
 - c. Case-based studies to determine type and amount of dental radiographs needed
 - i. CAMBRA risk assessment guidelines
 - ii. Visual exam of area
 3. Magnetostrictive ultrasonic techniques (Lec, Lab)
 - a. Benefits of ultrasonic technology
 - i. Creates microfractures in calculus
 - ii. Disrupts plaque biofilm
 - iii. Lavage
 - iv. Water spray cooling action
 - v. Cavitation
 - vi. Acoustic microstreaming
 - b. Types of magnetostrictive ultrasonic inserts
 - i. Anatomy of the magnetostrictive insert tip
 1. Point
 2. Lateral sides
 3. Back
 4. Face
 5. Active area
 - ii. SlimLine straight insert
 1. Periodontal pockets 4mm or less
 2. Light to moderate calculus removal
 3. Removal of plaque biofilm
 - iii. Thin insert
 1. Indicated for shallow periodontal pockets
 2. Removal of light calculus deposits
 3. Removal of plaque biofilm
 - c. Indications and contraindications for use
 - d. Procedure for ultrasonic techniques

- i. Adaptation of ultrasonic tip
 - ii. Oblique/transverse (curet like)
 - iii. Vertical (probe like)
 - iv. Calculus removal technique
 - v. Sweeping vs. tapping
 - vi. Top down approach
- e. Equipment maintenance and infection control procedures
 - i. Antimicrobial preprocedural rinses
 - ii. Aerosol reduction techniques and devices
 - 1. Ergofinger
 - 2. Ergovac HVE tips
 - 3. Four handed dentistry
- 4. Infection and hazard control protocols (Lab)
 - a. Maintenance and sterilization of dental hygiene instruments
- 5. Principles of law and ethics (Lec, Lab)
 - a. Legal duties for the California dental hygienist
 - i. Magentostriptive ultrasonic scaling
 - ii. Interim therapeutic restorations
 - iii. Radiographic decision making
 - b. Patient documentation
 - i. Accurate electronic charting and patient records
 - ii. Patient confidentiality
 - iii. Acceptable standards of dental hygiene care
 - iv. Professional ethics and interpersonal interactions
 - v. Cultural competency

Lab Content

Practice advanced techniques for clinical procedures for patient care: interim therapeutic restorations and ultrasonic technology.

Special Facilities and/or Equipment

1. Classroom with multimedia equipment and tables for lab work, dental hygiene clinic.
2. Personal protection barriers, instrument kit, expendable supplies kit.
3. When taught as an online/hybrid course, access to computer with email software and hardware; email address.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Examinations:

1. Complete written examinations on subject areas to a level of 75%

Clinical proficiencies:

1. As recorded on a process evaluation, complete clinical proficiencies on instruments to a level of 75%

a. Interim therapeutic restorations

b. Ultrasonic technology

Project requirements:

1. Complete lab assignments on interim therapeutic restorations to a level of 75%

Class participation:

1. Students must prepare for all classes as demonstrated by having all necessary supplies and equipment in lecture and lab and by participating in class discussions

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture

Laboratory

Representative Text(s) and Other Materials

Bowen, D., and J. Pieren. Darby and Walsh Dental Hygiene Theory and Practice, 5th ed.. 2019.

Nield-Gehrig. Fundamentals of Periodontal Instrumentation, 8th ed.. 2019.

Nield-Gehrig, J., D. Shin, and D. Willman. Foundations of Periodontics for the Dental Hygienist, 5th ed.. 2018.

Hoang, L.. Clinical Dental Hygiene Theory Manual II. 2024.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Read sections weekly in course syllabus
2. Read modules in canvas on history of interim therapeutic restorations and teledentistry
3. Read 10 pages of scientific journal article on atraumatic restorative procedures

Discipline(s)

Dental Technology