

D H 328B: CLINICAL DENTAL HYGIENE THEORY II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
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 analyze dental hygiene instrumentation techniques and appreciate the complexity of removing dental deposits while maintaining the integrity of the root surface.

Description

Discussion and demonstration of advanced and supplemental dental hygiene functions, interim therapeutic restorations, advanced instrumentation techniques, advanced local anesthesia techniques, dentinal desensitization, air polishing, implants in dentistry, orthodontic therapy and new technologies in dental hygiene. 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:

- Assess patient oral conditions and determine appropriate advanced dental hygiene instruments for specific advanced techniques.
- Discuss new technologies and techniques in local anesthesia administration.
- Describe dentinal hypersensitivity and demonstrate a working knowledge of dentinal desensitization products.
- Discuss criteria for selecting patients for air polishing.
- Assess the patient with dental implants and provide appropriate dental hygiene care.
- Modify dental hygiene treatment procedures for the patient with orthodontic appliances.
- Recommend appropriate oral self-care aids and self-oral health care procedures.
- Demonstrate placement of interim therapeutic restorations.
- Analyze patient assessment data and recommend the appropriate type and amount of dental radiographs.
- Adhere to standard infection and hazard control protocols during all procedures.

K. Apply the principles of law and ethics to the practice of dental hygiene.

Course Content

A. Advanced dental hygiene instruments and techniques (Lec and Lab)

- Advanced instruments
 - Types of instruments
 - Micro-Mini Gracey curets
 - Diamond coated files
 - Quentin furcation curet
 - O'Heir debridement curet
 - Hirschfeld periodontal file
 - Hoe
 - Vision curvettes
 - Dental endoscopy
 - Design and function
 - Advantages and disadvantages
- Advanced instrumentation techniques
 - Dental root morphology
 - Clinical vs. therapeutic endpoints for treatment
 - Root debridement techniques
 - Vertical, horizontal and oblique strokes
 - Exploring, scaling and root debridement strokes
 - Alternative fulcrums
 - Extraoral fulcrums
 - Intraoral opposite arch fulcrums
 - Intraoral cross arch fulcrums
 - Finger on finger fulcrums
 - Assisted fulcrums
 - Alternative patient/operator positioning
 - Around the clock positioning
 - Standing while scaling techniques
 - Ergonomics
 - Runner's stance
- Piezo ultrasonics technology
 - Type of piezo types
 - H-3 tip
 - 1-S tip
 - Spray settings
 - Benefits of use
 - Increased patient comfort
 - Less noise
 - Less water spray
 - Integrated unit
 - Technique
 - Linear stroke pattern
 - Adaptation of lateral side
- Advanced local anesthesia (Lec and Lab)
 - Non-injectable local anesthesia
 - Rationale for use
 - Types of non-injectable anesthetics
 - Oraqix
 - Benzocaine topical
 - Indications and contraindications
 - Technique
 - Papillary injections
 - Rationale for use
 - Indications for use
 - Technique
- Dentinal hypersensitivity (Lec and Lab)
 - Process of dentinal hypersensitization
 - Brannstrom's hydrodynamic theory

- b. Etiology of hypersensitivity
- c. Differential diagnosis
- 2. Indications and contraindications
- 3. Treatment of hypersensitivity
 - a. Preventive plan
 - b. Therapeutic plan
- 3. Dentinal desensitization products
 - a. Types
 - 1) First line of defense
 - 2) Second line of defense
 - b. Modes of action
 - c. Technique for desensitizing teeth
- D. Air polishing (Lec)
 - 1. Indications and contraindications
 - 2. Armamentarium/equipment
 - a. Air polishing unit
 - b. Powder
 - c. PPE for operator
 - d. Maintenance of equipment
 - 3. Technique
 - a. Angulation of handpiece to tooth surface
 - 1) Anterior teeth
 - 2) Posterior teeth
- E. Dental implants (Lec and Lab)
 - 1. Types of dental implants
 - a. Parts of an implant
 - 2. Osseointegration
 - 3. Indications and contraindications
 - 4. Assessment of implant health
 - a. Mobility
 - b. Inflammation
 - c. Exudate
 - d. Bleeding
 - e. Probing implants
 - 5. Peri-implantitis
 - 6. Armamentarium used during dental hygiene treatment
 - a. Types of instruments
 - 1) Implant soft-tip insert
 - 2) Plastic instruments
 - 3) Gold plated instruments
- F. Orthodontics (Lec and Lab)
 - 1. Rationale for orthodontic treatment
 - 2. Typical orthodontic treatment
 - 3. Standard orthodontic appliances
 - a. Arch wire, brackets and bands
 - b. Orthodontic retainers
 - c. Palatal expanders
- G. Oral health care procedures (Lec)
 - 1. Oral health instructions for the patient with:
 - a. Dentinal hypersensitivity
 - b. Dental implants
 - c. Orthodontic appliances
 - 2. Oral health aids
 - a. Types
 - 1) Plastic coated oral hygiene aids
 - 2) Interdental aids
 - 3) Toothbrushes
 - 4) Waterpik
 - b. Modifications in technique
 - 1) Brushing
 - 2) Flossing
- H. Interim therapeutic restorations (Lec and Lab)
 - 1. Rationale for placing interim therapeutic restorations
 - a. History of law AB1174
 - b. Role of tele-dentistry and access to care in California
 - 2. Patient and tooth selection criteria
 - a. Proximity of dental caries to dental pulp
 - b. Presence of dental pain
 - c. Patient cooperation
 - d. Patient health status
 - e. Prognosis of tooth/teeth
 - f. Current radiographs
 - 3. Armamentarium and dental materials for interim therapeutic restorations
 - a. Dental restorative instruments
 - b. Glass ionomer composite material
 - c. Tritrator
 - d. Gauze, cotton rolls, saliva ejector, vaseline
 - 4. Technique
 - a. Preparation of materials and equipment
 - b. Isolation of working area
 - c. Preparation of tooth
 - d. Placement of glass ionomer material
 - e. Evaluation of ITR
 - 5. Role of dental consultation
 - 6. Patient documentation
 - a. Informed consent
 - b. Post-operative instructions
 - c. Potential adverse outcomes
 - I. Radiographic decision making (Lec and Lab)
 - 1. Rationale for the dental hygienist to take dental radiographs prior to an examination by a dentist
 - 2. Tele-dentistry and access to care
 - 3. Case-based studies to determine radiographs needed
 - a. CAMBRA risk assessment guidelines
 - b. Visual exam of area
 - J. Infection and hazard control protocols (Lab)
 - 1. Maintenance and sterilization of dental hygiene instruments
 - 2. Disposal of local anesthetics
- K. Principles of law and ethics (Lec and Lab)
 - 1. Legal duties for the California dental hygienist
 - a. Local anesthetics
 - b. Orthodontics
 - c. Interim therapeutic restorations
 - d. Radiographic decision making
 - 2. Patient documentation
 - a. Accurate electronic charting and patient records
 - b. Patient confidentiality
 - c. Acceptable standards of dental hygiene care
 - d. Professional ethics and interpersonal interactions
 - e. Cultural competency

Lab Content

Practice advanced techniques for clinical procedures for patient care: interim therapeutic restorations, dental hygiene instruments, root morphology review, and advanced fulcrums and patient/operator positioning, adjunct procedures and advanced anesthetic techniques.

Special Facilities and/or Equipment

- A. Classroom with multimedia equipment and tables for lab work, dental hygiene clinic.
- B. Personal protection barriers, instrument kit, expendable supplies kit.

Method(s) of Evaluation

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. Advanced instruments

b. Advanced techniques

c. Local anesthesia

d. Interim therapeutic restorations

Project requirements:

1. Complete lab assignments on local anesthesia, orthodontics, root morphology and new technologies 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

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. 2021.

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

A. Read 20 pages on dental root anatomy in textbook.

B. Read sections weekly in course syllabus.

C. Practice advanced clinical techniques on typodont including debridement techniques in root concavities and furcation areas.

D. Peer evaluation of advanced dental hygiene techniques using grading rubric.

Discipline(s)

Dental Technology