

D H 308: CLINICAL TECHNIQUE

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	6
Hours:	3 lecture, 9 laboratory per week (144 total per quarter)
Advisory:	Not open to students with credit in D H 61A.
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 differentiate between dental hygiene instruments, including sickle scaler, universal curets and gracey curets, and demonstrate safe instrumentation technique on a final clinical examination.
- The student will perform assessments on a student partner, document the exam findings and prepare a patient assessment project research paper, including treatment plan and scientific evidence-based research related to the patient's specific needs with a score of at least 75% on the grading rubric.

Description

Continuation of dental hygiene clinical practice and instrumentation techniques including: instrumentation for scaling and root debridement and instrument sharpening. Adjunctive dental hygiene procedures taught include: fluorides, selective coronal polishing. Clinical activities utilize typodonts and student partners. The course requires evaluation of clinical performance through demonstration. Evaluation of best practices through evidence based research. Supportive labs and observation to reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting for D H 308. 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:

- Categorize the various types of non-surgical periodontal therapy skills and explain the rationale for deciding the appropriate dental hygiene therapy for a specific patient.
- Demonstrate non-surgical periodontal therapy instrumentation skills and techniques.
- Demonstrate correct technique and explain the rationale for sharpening universal curets, graceys, and sickle scalers.
- Categorize the causes of dental stains, the indication and contraindications for coronal polishing and demonstrate the correct technique.
- Identify the risk factors for dental caries and the protective factors in the caries balance equation.

- Identify the risk factors for periodontal disease and the non-surgical dental hygiene therapies used in the treatment of periodontal disease.
- Analyze and interpret patient assessment data and formulate a comprehensive dental hygiene treatment plan based on current evidence based research for each patient.
- Choose the appropriate evaluation assessment mechanism to evaluate the outcomes of dental hygiene care, for all scopes of practice of dental hygiene.
- Perform a comprehensive patient assessment clinical project and research paper on a student partner to include: full assessment exams, caries and periodontal risk assessments, nutritional analysis and recommendations, oral hygiene instruction, and a comprehensive treatment plan.
- Discuss the factors in caring for pediatric and adolescent patients in dental hygiene practice.

Course Content

- Non-surgical periodontal therapy (lec)
 - Rationale for performing scaling and root planing (lec)
 - Rationale for performing supportive periodontal therapy (lec)
 - Rationale for the dental prophylaxis (lec)
 - Procedures involved during scaling and root planing, maintenance, and prophylaxis appointments (lec)
- Instrumentation and clinical skills (lec and lab)
 - Design and use of universal curets (lec and lab)
 - Design and use of gracey curets (lec and lab)
 - Design and use of the sickle scaler (lec and lab)
 - Scaling techniques and use of fulcrums
 - Adaptation of gracey curets, universal curets, and sickle scalers (lec and lab)
 - Indications for use of the scaling instruments (lec and lab)
 - Design, use and adaptation of ultrasonic scalers (lec and lab)
- Sharpening (lec and lab)
 - Rationale for sharpening curets and scalers (lec)
 - Procedure for sharpening universal and gracey curets, and sickle scalers (lec and lab)
 - Evaluation of sharpening procedure (lec and lab)
- Coronal polishing (lec and lab)
 - Dental stains and discolorations (lec)
 - Indications and contraindications for coronal polishing (lec)
 - Clinical application of selective polishing (lec and lab)
- Caries risk (lec and lab)
 - Multifactorial nature of the dental caries process (lec and lab)
 - Host and teeth (lec and lab)
 - Microorganisms (lec and lab)
 - Diet, substrate, pH (lec and lab)
 - Saliva (lec and lab)
 - Caries balance equation (lec and lab)
 - Deminerization and remineralization process (lec)
 - Preventive and therapeutic therapies (lec and lab)
 - Physiology and metabolism of fluorides (lec)
 - Indications for application of topical and systemic fluorides (lec)
 - Contraindication for application of topical and systemic fluorides (lec)
 - Procedure for applying topical fluoride (lec and lab)
 - Prescription and over the counter fluoride products (lec)
 - Chlorhexidine mouthrinses (lec and lab)
 - Casein phosphopeptide-amorphous calcium phosphate (lec)
 - Calcium phosphate (lec)
 - Tricalcium phosphate (lec)
 - Calcium sodium phosphosilicate (lec)
 - Xylitol (lec)

- F. Periodontal risk assessment (lec and lab)
 - 1. Modifiable and non-modifiable risk factors (lec and lab)
 - 2. Clinical applications of periodontal risk assessment (lec and lab)
 - a. Probing (lec and lab)
 - b. Clinical attachment levels (lec and lab)
 - c. Radiographic analysis (lec and lab)
 - d. Bacterial testing (lec and lab)
- G. Dental hygiene treatment plan (lec and lab)
 - 1. Components of the dental hygiene treatment plan (lec)
 - 2. Rationale for development of a dental hygiene treatment plan (lec)
 - 3. Procedure for developing a dental hygiene treatment plan (lec and lab)
- H. Evaluation of dental hygiene care (lec and lab)
 - 1. Rationale for evaluation of dental hygiene care (lec)
 - 2. Measurements for outcomes evaluation (lec and lab)
 - 3. Interpretation of results (lec and lab)
 - 4. Systemic and intraoral conditions which warrant referral to dental and/or medical specialists (lec and lab)
- I. Patient assessment project (lec and lab)
 - 1. Health/dental review, vitals signs (lec and lab)
 - 2. Extra/intraoral exam (lec and lab)
 - 3. Gingival description (lec and lab)
 - 4. Comprehensive periodontal exam (lec and lab)
 - 5. Caries risk assessment (lec and lab)
 - 6. Periodontal risk assessment (lec and lab)
 - 7. Dental charting (lec and lab)
 - 8. Nutritional analysis and recommendations (lec and lab)
 - 9. Patient education (lec and lab)
 - 10. Treatment plan (lec and lab)
 - 11. Research paper (lec)
- J. Patient considerations (lec and lab)
 - 1. Pediatric patients (lec)
 - a. Anticipatory guidance (lec)
 - b. Dental home (lec)
 - c. Early childhood caries (lec)
 - d. Parent education (lec)
 - e. Abuse (lec)
 - 2. Adolescent patients (lec)
 - a. Growth, cognition, social development (lec)
 - b. Self-care (lec)
 - c. Caries and periodontal risk (lec)
 - d. Nutrition, eating disorders (lec)
 - e. Third molars (lec)
 - f. Injury prevention (lec)
 - 3. Patient competency research projects (lec)

Lab Content

Clinical dental hygiene clinic labs with student patient partners to include:

- A. Instrumentation and clinical skills: design and use of universal curets, gracey curets, and sickle scaler
 - 1. Scaling techniques and use of fulcrums
 - 2. Adaptation of gracey curets, universal curets, and sickle scalers
 - 3. Indications for use of the scaling instruments
 - 4. Design, use and adaptation of ultrasonic scalers
- B. Sharpening
 - 1. Procedure for sharpening universal and gracey curets, and sickle scalers
 - 2. Evaluation of sharpening procedure
- C. Coronal polishing
 - 1. Clinical application of selective polishing
- D. Caries risk - clinical procedures
 - 1. Preventive and therapeutic therapies

- 2. Procedure for applying topical fluoride
- 3. Chlorhexidine mouthrinses
- E. Periodontal risk assessment
 - 1. Clinical applications of periodontal risk assessment
 - a. Probing
 - b. Clinical attachment levels
 - c. Radiographic analysis
 - d. Bacterial testing
- F. Dental hygiene treatment plan
 - 1. Procedure for developing a dental hygiene treatment plan
- G. Evaluation of dental hygiene care
 - 1. Clinical measurements and data for outcomes evaluation
 - 2. Interpretation of results
 - 3. Systemic and intraoral conditions which warrant referral to dental and/or medical specialists
- H. Patient assessment project
 - 1. Health/dental review, vitals signs
 - 2. Extra/intraoral exam
 - 3. Gingival description
 - 4. Comprehensive periodontal exam
 - 5. Caries risk assessment
 - 6. Periodontal risk assessment
 - 7. Dental charting
 - 8. Nutritional analysis and recommendations
 - 9. Patient education
 - 10. Treatment plan

Special Facilities and/or Equipment

- A. Multimedia classroom, dental hygiene clinic, student instrument kit, personal protective barriers, expendable supplies kit, sterilization lab.
- B. When taught as a hybrid course, access to computer with email software and hardware; email address. Students must participate in lab sessions located on Foothill campus.

Method(s) of Evaluation

- Patient assessment clinic and research project
- Clinical process evaluations
- Clinical final
- Written final exam
- Quizzes
- E-portfolio: written reflection papers on the four DH program competencies, field experiences and professional development log, community service log and professional development log

Method(s) of Instruction

- Lecture
- Discussion
- Cooperative learning exercises and patient case studies
- Field work
- Oral presentations
- Laboratory
- Demonstration
- Community service

Representative Text(s) and Other Materials

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

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

Wynn, R., T. Meiler, and H. Crossley. Drug Information Handbook for Dentistry, 25th ed. 2019.

Chan, P., J. Leicht, and P. Staana. Foothill College Dental Hygiene Clinic Manual. 2020.

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

- A. Weekly reading assignments, 25-75 pages per week.
- B. Patient assessment research project.
- C. Reflection papers.

Discipline(s)

Dental Technology