

D H 304: PRE-CLINICAL DENTAL HYGIENE

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	4
Hours:	1 lecture, 9 laboratory per week (120 total per quarter)
Advisory:	Not open to students with credit in D H 54.
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 correctly demonstrate dental hygiene assessment procedure skills on a student partner including: review of health, dental history vital signs, extraoral/ intraoral examination, periodontal examination, caries examination, classify occlusion.
- The student will identify a variety of dental hygiene assessment instruments, the proper use of each type, and the correct adaptation and use of explorers and periodontal probes.

Description

The first in a series in dental hygiene clinical courses. Integrates the scientific and clinical principles underlying the practice of dental hygiene. Performance of clinical procedures and techniques for patient assessment, including prevention of disease transmission, health history, extra-intraoral examination, gingival evaluation and periodontal examination are taught in a pre-clinical setting. Students will practice on typodonts and classmates. The course requires evaluation of clinical performance through demonstration of skill acquisition and level of competency. Field experiences reinforce and amplify the knowledge and skills needed to perform dental hygiene procedures in the clinical setting. 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:

- Utilize appropriate infection control procedures for the dental setting, including: prevention of cross contamination, disinfection of the operatory, and sterilization of instruments.
- Take a thorough health/dental history and determine conditions which require special appointment planning, antibiotic premedication, medical consultation, and/or physician referral.
- Use current, evidence based drug references to research medications used by patients.
- Demonstrate the correct technique for taking and recording vital signs on a patient, including: blood pressure, pulse, and respiration.
- Perform an extra/intraoral examination identifying both normal and abnormal structures of the oral cavity, head and neck regions, and conditions that may need consultation or biopsy, using the correct terminology and descriptive terms.

- Perform an exam of the gingiva and evaluate the health of the gingiva according to its color, contour, consistency, and surface texture.
- Perform a comprehensive periodontal exam recording all the required elements.
- Demonstrate correct patient/operator positioning and the proper use of the mouth mirror, probe, and explorer, including: proper grasp, angulation, and adaptation to the tooth, without causing trauma to tissues.
- Operate the disinfection and sterilization equipment, and monitor their effectiveness with the use of a spore test.
- Accurately record assessment data in a patient's chart according to clinic protocol, using appropriate dental terminology when communicating through oral and written means to faculty.
- Recognize and adhere to the ethical and legal principles involved when performing dental hygiene assessment procedures.

Course Content

- Infection control and preparation for patient care
 - Operation and maintenance of the dental unit
 - Infection control procedures
 - Engineering and work practice controls
 - Personal protective equipment
 - Instrument processing
 - Exposure control
 - Disposal of waste and sharps
 - Preventing cross contamination in the dental environment
- The personal/social history, medical history, dental history, vital signs
 - Communication techniques for information gathering
 - Stress reduction protocols
 - Cultural, language and health literacy issues
 - Open ended questions
 - Risk assessment
 - Physical status: ASA categories
 - Blood glucose levels
 - Medications
 - Unstable medical conditions: hypertension, diabetes, cardiovascular disease
 - Dental history
 - Chief complaint
 - Dental concerns
 - Existing dental conditions
 - Radiographs
 - Dietary habits, dental habits and daily self-care
- Prescription and non-prescription medications
 - Classification of medications
 - Mechanism of action
 - Special appointment planning and modifications to care due to medications
 - Adverse effects
 - Effects on dental treatment
 - Prevention of allergic reactions or medical emergencies
- Vitals signs
 - Pulse
 - Respiration
 - Blood pressure
 - Normal ranges for adults and children
 - ASA categories related to vital signs
 - Factors that effect vital signs
 - Correct technique of taking vitals signs
 - Documenting vital signs
 - Patient education and referral

E. Clinical extra/intraoral examination

1. Extra-oral structures

- a. Overall appraisal of the head and neck
- b. Eyes, ears, nose
- c. Sternomastoid muscle
- d. Lymph nodes of the head and neck
- e. Salivary glands
- f. Thyroid gland
- g. Temporomandibular joint

2. Intra-oral structures

- a. Lips and vermilion border
- b. Inspection of labial and buccal oral mucosa
- c. Hard palate, soft palate
- d. Oropharynx, tonsils
- e. Tongue: dorsal, ventral, lateral
- f. Floor of the mouth
- g. Salivary glands

3. Extra/intraoral examination process

- a. Sequence
- b. Visual inspection
- c. Palpation techniques

4. Terminology for describing and documenting atypical finds

- a. Macule
- b. Papule
- c. Patch
- d. Plaque
- e. Nodule
- f. Wheal
- g. Vesicle
- h. Bulla
- i. Pustule
- j. Ulcer
- k. Fissure
- l. Petechiae

5. Descriptive terms the characteristics of soft tissue lesions

- a. Discrete
- b. Grouped
- c. Confluent
- d. Linear
- e. Leukoplakia
- f. Erythroplakia
- g. Erythroleukoplakia

6. ABCD-T approach to formulating lesion descriptions

- a. A = anatomic location
- b. B = border: regular, irregular, margins: smooth, raised
- c. C = color: white, red, yellow, brown, blue, black
- d. D = dimension: measured with periodontal probe in millimeters
- e. T = type of lesion

F. Clinical evaluation and description of the gingiva

1. Descriptive terminology for gingival description

- 2. Color of gingiva
- 3. Surface texture of gingiva
- 4. Contour of gingiva
- 5. Consistency of gingiva
- 6. Bleeding or exudate

G. Clinical periodontal examination

- 1. Terminology for periodontal examination
- 2. Periodontal probing depths
 - a. Use of periodontal probe
 - b. Types of periodontal probes
 - c. Angulation and activation of probe
 - d. Reading the probe

e. Clinical procedures for periodontal probing and documentation

3. Bleeding, exudate or suppuration

- a. Significance of bleeding, exudate or suppuration
- b. Patient education, referral as needed

4. Recession

- a. Landmarks for measuring recession
- b. Clinical attachment level calculations
- c. Patient education, referral as needed

5. Furcation

- a. Use of Nabers probe
- b. Furcation classification criteria
- c. Patient education, referral as needed

6. Mobility, fremitus

- a. Clinical techniques for determining mobility and fremitus
- b. Significance of mobility
- c. Patient education, referral as needed

H. Instrumentation techniques for clinical assessments

1. Clinician ergonomics and positioning for instrumentation

2. Instrumentation fine motor skills

- a. Modified pen grasp
- b. Pivoting for tip adaptation
- c. Rolling for tip adaption
- d. Angulation between tooth surface and instruments
- e. Instrumentation stroke types
- f. Fulcrum techniques

3. Use of mirror

- a. Reflection
- b. Retraction
- c. Transillumination
- 4. Use of explorer

a. Tactile sensitivity and detection

- b. Adaptation of tip
- c. Assessment stroke
- d. Directional strokes
- e. Types of explorers for special situations

5. Use of periodontal probe

- a. Calibration
- b. How to read
- c. Measuring instrument
- d. Walking stroke
- e. Correct pressure
- 6. Use of Naber's probe
- a. Furcation evaluation
- 7. Visual cues for a-traumatic instrumentation

I. Sterilization and disinfection procedures

- 1. Instrument transport and handling
- 2. Cleaning and disinfection procedures
- 3. Packaging, labeling and sterilization processes
- 4. Biologic monitoring of sterilization
- 5. Operating equipment for disinfection and sterilization

J. Case presentation, communication and documentation in clinical environment

- 1. Verbal and nonverbal communication appropriate in clinical settings
- 2. Clinic procedures for documentation of patient assessment data
- 3. Deliver a case presentation to an instructor highlighting significant findings from the assessment exams, including: medical history, dental history, personal/social history, extra/intraoral examination, gingival evaluation, and periodontal evaluation
- 4. Overcoming communication barriers
 - a. Cultural differences
 - b. Health literacy
 - c. Differences across the lifespan

- d. Visually impaired
- e. Hearing impaired
- f. Interpreters
- K. Legal and ethical considerations in dental hygiene assessment procedures
 - 1. Compliance with infection control
 - 2. Patient confidentiality and Health Insurance Portability and Accountability Act
 - 3. Informed consent
 - 4. Referrals to other health professionals
 - 5. Ethical principles considerations
 - a. Beneficence
 - b. Nonmaleficence
 - c. Veracity
 - d. Justice
 - e. Autonomy

Lab Content

- A. Clinic practice of assessment skills for the dental hygiene student with student partner patients, to include: health history, dental history, vital signs, extra/intraoral exams, gingival description, and comprehensive periodontal examination using assessments instruments.
- B. Field experience observations, attendance at professional dental hygiene meetings and community service.

Special Facilities and/or Equipment

- A. Dental hygiene clinic, student instrument kit, clinic gown, barriers for the dental unit.
- B. Multimedia classroom and equipment for demonstrations, videos on assessment and instrumentation techniques.
- C. 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

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

- Clinic observations, community service projects, professional meeting attendance with log of activities and reflection paper
- Clinical midterm
- Clinical final
- Professionalism
- Quizzes
- Instrumentation evaluations

Method(s) of Instruction

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

- Lecture
- Discussion
- Cooperative learning exercises
- Field work
- 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.

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

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

Chan, P., Leicht, J., 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. Written reflection papers on community service, professional meetings and observations.
- C. Clinical practice homework on typodont model.

Discipline(s)

Dental Technology