



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: DLH 1200 Pre-Clinic

Date: Spring 2021

Credit Hours: 5

Prerequisite(s): Acceptance into the Dental Hygiene AAS Degree Program

Delivery Method:

<input checked="" type="checkbox"/> Lecture	2 Contact Hours (1 contact = 1 credit hour)
<input type="checkbox"/> Seminar	0 Contact Hours (1 contact = 1 credit hour)
<input checked="" type="checkbox"/> Lab	6 Contact Hours (2-3 contact = 1 credit hour)
<input type="checkbox"/> Clinical	0 Contact Hours (3 contact = 1 credit hour)
<input type="checkbox"/> Online	
<input type="checkbox"/> Blended	

Offered: Fall Spring Summer

IAI Equivalent –**Only for Transfer Courses**-go to <http://www.itransfer.org>:

CATALOG DESCRIPTION:

Introduction to the responsibilities and fundamental skills the dental hygienist uses in daily clinical practice; instrumentation, removing stains and deposits from tooth surfaces, instrument care, sterilization and disinfection, skills performed on mannequins and student/patients; designed to familiarize the beginning dental hygiene student with duties and responsibilities in the clinical aspect of the profession and the role the hygienist plays; intro to dental hygiene, oral inspection, dental hygiene diagnoses and care planning.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

Upon completion of the course, the student will be able:

[Choose up to three goals that will be formally assessed in this course.]

- To apply analytical and problem solving skills to personal, social, and professional issues and situations.
- To communicate successfully, both orally and in writing, to a variety of audiences.
- To construct a critical awareness of and appreciation for diversity.
- To understand and use technology effectively and to understand its impact on the individual and society.
- To develop interpersonal capacity.
- To recognize what it means to act ethically and responsibly as an individual and as a member of society.
- To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
- To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

Upon completion of the course, the student will be able to:

1. Demonstrate an understating of the professional Dental Hygienist
 - 1.1. Define the discipline of dental hygiene, the dental hygienist, and the dental hygiene process of care.
 - 1.2. Explain the paradigm for the discipline of dental hygiene.
 - 1.3. Describe the different dental hygiene conceptual models.
 - 1.4. Describe the professional roles of the dental hygienist.
 - 1.5. Explain professional regulation in dental hygiene, including the purpose of standards of practice, accreditation, practice acts, and licensure.
 - 1.6. Explain the role and importance of professional dental hygiene associations.
 - 1.7. Describe the different workforce models for dental hygienists.
2. Demonstrate infection control for the dental hygienist
 - 2.1. Discuss standard precautions and basic infection-control concepts.
 - 2.2. Explain the similarities and differences between the infection-control model and model of dental hygiene care.
 - 2.3. Identify the government agencies that play key roles in regulations of infection control standards.
 - 2.4. Discuss the standard of care, including assessment of risk of disease transmission in oral healthcare, and planning of appropriate control measures.
 - 2.5. Explain the principles of infection control, including:
 - 2.5.1. Select appropriate protective attire for dental hygiene client care.
 - 2.5.2. Prepare the dental environment before and after client care.
 - 2.6. Discuss strategies to prevent disease transmission, and how healthcare personnel can take action to stay healthy.
3. Demonstrate principles of positioning
 - 3.1. Develop an appreciation of evidence-based knowledge of positioning in the dental environment
 - 3.2. Demonstrate operation of the clinician stool and patient chair

- 3.3. Demonstrate correct patient positioning relative to the clinician
- 3.4. Position the equipment so that it enhances neutral positioning
- 3.5. Recognize incorrect position and describe or demonstrate how to correct the problem
4. Demonstrate clock positions for instrumentation
 - 4.1. Demonstrate and maintain neutral seated position for each of the mandibular and maxillary treatment areas
 - 4.2. Demonstrate the traditional clock position for each of the mandibular and maxillary treatment areas
 - 4.3. Demonstrate standing clinician position for the mandibular treatment areas
5. Demonstrate patient reception and ergonomic practice
 - 5.1. Apply ergonomic principles in dental hygiene practice, including:
 - 5.1.1. Discuss environmental factors leading to repetitive strain injury (RSI).
 - 5.1.2. Describe modifications in the work environment that minimize RSI and stress.
 - 5.1.3. Relate proper grasp and instrument factors to ergonomic principles.
 - 5.1.4. Relate proper hand stabilization to ergonomic principles.
 - 5.1.5. Modify client positioning based on ergonomic principles and client needs.
 - 5.1.6. Demonstrate neutral shoulder, elbow, forearm, and wrist positions.
 - 5.2. Demonstrate strengthening and chairside stretching exercises.
 - 5.3. Describe common RSIs in terms of symptoms, risks, prevention, and treatment.
6. Demonstrate the uses of the mouth mirror
 - 6.1. Discuss mouth mirror design
 - 6.2. Discuss mouth mirror use
 - 6.3. List advantages and disadvantage
 - 6.4. Explain the functions of the mouth mirror
7. Demonstrate the various instrument grasps
 - 7.1. List the 4 different grasps
 - 7.2. Explain the fulcrum
 - 7.3. Demonstrate finger rests
8. Discuss the air-water syringe
 - 8.1. Demonstrate proper use
9. Describe dental calculus and its formation
 - 9.1. Describe different locations of calculus
 - 9.2. List composition of calculus
 - 9.3. Describe calculus formation
10. Discuss the use of the periodontal probe
 - 10.1. Identify the types of probes
 - 10.2. Discuss the uses of the 3 types of probes
 - 10.3. Discuss the markings on a calibrated probe
 - 10.4. List 10 uses of the periodontal probe
11. Identify explorers used by the dental hygienist
 - 11.1. Discuss the design of the explorer
 - 11.2. List 9 uses for an explorer
12. Describe instrument design, use, and classification
 - 12.1. Discuss basic dental hygiene instrument design and classify an instrument and its use based upon variations in instrument shank length, curvature, flexibility, blade type, and blade-to-shank angulation.
 - 12.2. Discuss the classifications of instruments, including:
 - 12.2.1. Describe assessment instruments, their design, and uses.
 - 12.2.2. Customize fulcrum placement for a tooth surface.

- 12.2.3. Describe treatment instruments, their design, and uses.
- 12.2.4. Explain proper instrument blade adaptation and angulation.
- 12.2.5. Define the stroke principles of blade angulation, adaptation, and activation.
- 12.2.6. Describe protective scaling strategies and reinforcement scaling.
- 12.2.7. Identify intraoral and extraoral fulcrums for periodontal instrumentation.
- 13. Demonstrate hand-activated instruments in the anterior and posterior sextants
 - 13.1. Demonstrate access to the anterior and posterior teeth with optimum vision while managing neutral positioning
 - 13.2. Demonstrate correct mirror use, grasp, and finger rest in each of the anterior and posterior sextants while maintain neutral positioning
 - 13.3. Demonstrate finger rests using precise finger placement on the handle of the periodontal instrument
 - 13.4. Identify the correct wrist position when using an intraoral finger rest in the maxillary and mandibular anterior and posterior treatment areas
 - 13.5. Discuss anterior and posterior sickle scalers
 - 13.6. Identify the design characteristics of a variety of sickle scaler instruments
 - 13.7. List the uses and limitation of sickle scalers
 - 13.8. List characteristics of a calculus removal stroke
- 14. Discuss universal curets
 - 14.1. Identify the design characteristics of a variety of universal curets
 - 14.2. Discuss advantages and limitations of the design characteristics of universal curets
 - 14.3. Name the uses of universal curets
- 15. Demonstrate health and dental histories
 - 15.1. Explain the purpose of the health and dental histories
 - 15.1.1. Discuss decision making after the health history is obtained, including:
 - 15.1.2. Recognize implications of client health status for dental hygiene care.
 - 15.1.3. Understand the rationale and indications for preprocedural prophylactic antibiotics.
 - 15.1.4. Identify the need for consultation and collaboration with other healthcare professionals in order to develop an individualized dental hygiene care plan.
- 16. Demonstrate vital signs
 - 16.1. Discuss vital signs and the importance of minimizing risk of a medical emergency via vital signs assessment.
 - 16.2. Discuss the assessment of body temperature
 - 16.3. Discuss the significance of the pulse
 - 16.4. Discuss the assessment of respiration
 - 16.5. Discuss the assessment of blood pressure
- 17. Demonstrate emergency procedures
 - 17.1. Identify signs and symptoms of specific medical emergencies and appropriate treatment for each.
 - 17.2. Delineate protocols for performing Basic Life Support in adults, children, and infants.
- 18. Demonstrate the extraoral and intraoral examination
 - 18.1. Discuss the clinical assessment, including recognition of normal head and neck anatomic structures, common signs of oral disease, and deviations from normal.
 - 18.2. Conduct the extraoral clinical assessment, including proper methods and sequence.
 - 18.3. Conduct the intraoral clinical assessment, including proper methods and sequence.
- 19. Describe dental indices
 - 19.1. Explain the purpose for an individual assessment score

- 19.2. Compare the available oral hygiene indices and list the criteria for an effective oral hygiene index.
- 20. Discuss dental fluoride
 - 20.1. Explain the purpose of fluoride application
 - 20.2. List the steps in fluoride application
- 21. Demonstrate coronal polishing of extrinsic stains
 - 21.1. State indications and contraindications for polishing
 - 21.2. Compare and contrast hand-activated stain removal system and power-driven system
- 22. Explain dentifrices and mouthrinses
 - 22.1. Identify forms, ingredients, and the purpose of a dentifrice
 - 22.2. Identify the purpose of the ADA seal
- 23. Discuss toothbrushes and toothbrushing
 - 23.1. List and describe the parts of a manual toothbrush
 - 23.2. List and describe 8 different methods for manual tooth brushing
 - 23.3. Discuss tongue care
- 24. Discuss various interdental aids
 - 24.1. List 3 types of gingival embrasures
 - 24.2. Identify different interdental aids for biofilm removal
- 25. Explain the dental hygiene care plan
 - 25.1. Identify the 6 key steps of the dental hygiene process
 - 25.2. Discuss the planning phase in the dental hygiene process of care, including:
 - 25.2.1. Explain the purpose of the planning phase and the client's role in care plan development.
 - 25.2.2. Identify the sequence for developing a dental hygiene care plan and how each step relates to the dental hygiene diagnosis.
 - 25.3. Demonstrate the evaluation phase of client care:
 - 25.3.1. Explain the purpose of the evaluation phase and its significance to the process of care.
 - 25.3.2. Formulate a client-centered care plan from a dental hygiene diagnosis.
 - 25.3.3. Discuss documentation, including its significance to the process of care and practitioner liability.
- 26. Discuss patient sequence
- 27. Demonstrate competency exposing, processing, and interpreting radiographs

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
To apply analytical and problem solving skills to personal, social, and professional issues and situations.	1.5 Explain professional regulation in dental hygiene, including the purpose of standards of practice, accreditation, practice acts, and licensure.
Second Goal	
To communicate successfully, both	19.1. Discuss the clinical assessment, including recognition of normal head and neck anatomic

orally and in writing, to a variety of audiences.	structures, common signs of oral disease, and deviations from normal.
Third Goal	
To recognize what it means to act ethically and responsibly as an individual and as a member of society.	<p>26.1. Identify the 6 key steps of the dental hygiene process</p> <p>26.2. Discuss the planning phase in the dental hygiene process of care, including:</p> <p>26.2.1. Explain the purpose of the planning phase and the client's role in care plan development.</p> <p>26.2.2. Identify the sequence for developing a dental hygiene care plan and how each step relates to the dental hygiene diagnosis.</p>

COURSE TOPICS AND CONTENT REQUIREMENTS:

- I. The Professional Dental Hygienist
 - a. dental hygiene
 - b. dental hygienist
 - c. dental process of care
 - d. dental hygiene paradigm
 - e. dental hygiene conceptual modes
 - f. professional roles of the dental hygienist
 - g. professional regulation in dental hygiene
 - i. purpose of standards of practice
 - ii. accreditation
 - iii. practice acts
 - iv. licensure
 - h. dental hygiene associations
 - i. workforce models for dental hygienists
- II. Infection Control Barriers for Patient and Clinician
 - a. standard precautions
 - b. basic infection-control concepts.
 - c. infection-control model compared to model of dental hygiene care.
 - d. government agencies that play key roles in regulations of infection control standards.
 - e. standard of care
 - i. assessment of risk of disease transmission in oral healthcare
 - ii. planning of appropriate control measures.
 - f. principles of infection control
 - i. appropriate protective attire for dental hygiene client care
 - ii. the dental environment before and after client care.
 - g. strategies to prevent disease transmission
 - h. healthcare personnel to stay healthy
- III. Demonstrate principles of positioning
 - a. positioning in the dental environment
 - b. operation of the clinician stool and patient chair
 - c. correct patient positioning relative to the clinician
 - i. supine
 - ii. semi-supine

- iii. patient head position
 - iv. patient head adjustment
 - d. equipment position that enhances neutral positioning
 - i. overhead dental light
 - ii. instrument tray
 - e. incorrect position
 - i. how to correct the problem
- IV. Demonstrate clock positions for instrumentation
 - a. neutral seated position
 - i. mandibular arch
 - ii. maxillary arch
 - b. traditional clock position
 - i. mandibular arch
 - ii. maxillary arch
 - c. standing clinician position
- V. Patient Reception and Ergonomic Practice
 - a. ergonomic principles
 - i. environmental factors leading to repetitive strain injury (RSI).
 - ii. modifications in the work environment that minimize RSI and stress
 - iii. proper grasp and instrument factors to ergonomic principles
 - iv. proper hand stabilization to ergonomic principles
 - v. client positioning based on ergonomic principles and client needs
 - vi. neutral shoulder, elbow, forearm, and wrist positions
 - b. strengthening and chairside stretching exercises
 - c. common RSIs
 - i. symptoms
 - ii. risks
 - iii. prevention
 - iv. treatment.
- VI. Dental Mirror
 - a. design
 - b. use
 - c. advantages and disadvantage
 - d. functions
 - i. indirect vision
 - ii. indirect illumination
 - iii. transillumination
 - iv. retraction
- VII. Instrument Grasps
 - a. 4 different grasps
 - i. Pen grasp
 - ii. Modified pen grasp
 - iii. Extended modified pen grasp
 - iv. Palm-thumb grasp
 - b. Fulcrum
 - i. Intraoral
 - ii. Extraoral
 - iii. Pressure
 - iv. Placement

- c. Finger rests
- VIII. Air-water Syringe
 - a. Use
- IX. Dental Calculus
 - a. locations
 - i. supragingival
 - ii. subgingival
 - b. composition
 - i. inorganic
 - ii. organic
 - c. formation
- X. Periodontal Probe
 - a. types
 - i. calibrated
 - ii. furcation
 - iii. PSR
 - b. calibrated probe markings
 - c. Uses
 - i. probing depth
 - ii. clinical attachment level (CAL)
 - iii. relative attachment level (RAL)
 - iv. bleeding upon probing (BOP)
 - v. amount of attached gingiva
 - vi. gingival recession
 - vii. furcation invasion or involvement
 - viii. size of atypical or pathologic lesions
 - ix. pathologic lesions
 - x. distance between teeth
- XI. Explorers
 - a. Design
 - i. Shank
 - ii. Length
 - iii. diameter
 - b. List 9 uses for an explorer
 - i. Dental caries
 - ii. Decalcification
 - iii. Irregularities in margins of restorations
 - iv. secondary caries around restorations
 - v. Morphologic crown and root anomalies
 - vi. External root resorption
 - vii. Supragingival calculus
 - viii. Subgingival calculus
 - ix. Cemental irregularities
- XII. Instrument Design, Use, and Classification
 - a. instrument design
 - i. shank length
 - ii. curvature
 - iii. flexibility
 - iv. blade type

- v. blade-to-shank angulation
 - b. classifications
 - i. assessment instruments
 - 1. design
 - 2. uses
 - ii. fulcrum placement
 - iii. treatment instruments
 - 1. design
 - 2. uses
 - iv. adaptation and angulation
 - v. stroke principles
 - 1. angulation
 - 2. adaptation
 - 3. activation
 - vi. protective scaling strategies
 - vii. reinforcement scaling.
 - viii. intraoral and extraoral fulcrums for periodontal instrumentation
- XIII. Demonstrate hand-activated instruments in the anterior and posterior sextants
- a. optimum vision while managing neutral positioning
 - i. anterior sextants
 - ii. posterior sextants
 - b. mirror use, grasp, and finger rest
 - i. anterior sextants
 - ii. posterior sextants
 - c. finger rests
 - d. wrist position when using an intraoral finger rest
 - i. maxillary arch
 - ii. mandibular arch
- XIV. Discuss anterior and posterior sickle scalers
- a. design characteristics
 - i. cross section
 - ii. working-end
 - iii. face
 - iv. application
 - v. primary functions
 - b. uses
 - i. remove calculus deposits from the crowns of teeth
 - c. limitations
 - i. Use on enamel surfaces only, not on root surfaces
 - d. List characteristics of a calculus removal stroke
 - i. Stabilization
 - ii. Adaption
 - iii. Angulation
 - iv. Lateral pressure
 - v. Characteristics
 - vi. Stroke directing
 - vii. Stroke number
- XV. Discuss universal curets
- a. design characteristics

- i. cross section
 - ii. working-end
 - iii. face
 - iv. cutting edges
 - v. application
 - vi. primary functions
 - b. advantages
 - i. can be used both supragingivally and subgingivally
 - ii. can be used with both anterior and posterior teeth
 - c. limitations
 - d. uses
 - i. removal of small to medium size calculus deposits of crown and root surfaces
- XVI. Medical and Dental History Review
 - a. purpose
 - b. decision making
 - i. implications of client health status for dental hygiene care
 - ii. rationale and indications for preprocedural prophylactic antibiotics
 - iii. consultation and collaboration with other healthcare professionals
- XVII. Vital Signs
 - a. minimizing risk of a medical emergency
 - b. body temperature
 - c. pulse
 - d. respiration
 - e. blood pressure
- XVIII. Emergency Procedures
 - a. signs and symptoms of specific medical emergencies
 - i. treatment
 - b. protocols for performing Basic Life Support
 - i. adults
 - ii. children
 - iii. infants
- XIX. Extraoral and Intraoral Examination
 - a. clinical assessment
 - i. normal head and neck anatomic structures
 - ii. common signs of oral disease
 - iii. deviations from normal
 - b. extraoral clinical assessment
 - i. methods
 - ii. sequence
 - c. intraoral clinical assessment
 - i. methods
 - ii. sequence
- XX. Indices
 - a. individual assessment score
 - b. oral hygiene indices
 - i. plaque control record
 - ii. plaque-free score
 - iii. simplified oral hygiene index (OHI-S)

- iv. plaque index
 - v. patient hygiene performance (PHP)
 - c. criteria for an effective oral hygiene index
- XXI. Fluoride
 - a. fluoride application
 - i. profession
 - ii. self-applied
 - iii. clinical guidelines
 - b. fluoride application process
 - i. varnish
 - ii. gels
 - c. remineralization products
 - i. chlorhexidine mouth rinse
 - ii. calcium and phosphate
 - iii. xylitol
 - iv. sodium bicarbonate
- XXII. Polishing: Extrinsic Stain
 - a. Indications
 - i. Extrinsic tooth stains
 - b. Contraindications
 - i. Absence of extrinsic stain
 - ii. Newly erupted teeth
 - iii. Tooth decalcification, hypocalcification, hypoplasia, demineralization, rampant caries
 - iv. Areas of recession where cementum or dentin is exposed
 - v. Areas of dentinal hypersensitivity
 - vi. Acute gingival or periodontal inflammation
 - vii. Immediately after deep scaling, root planing, or curettage
 - viii. Restored tooth surfaces: composite, bonding, glass ionomer, porcelain, gold, titanium (unless special polishing agent for these materials is used)
 - c. Hand-activated stain removal system
 - i. Hand-activated instruments
 - d. Power-driven system
 - i. Rubber cup
 - ii. Ultrasonic tip
 - iii. Air polishing
- XXIII. Dentifrices and Mouthrinses
 - a. Basic components
 - i. Powders
 - ii. Liquid gels
 - iii. Pastes
 - iv. Foam
 - v. Gel-past combinations
 - b. Purpose
 - i. Cosmetic
 - ii. Hygienic
 - iii. Therapeutic
 - c. Ingredients
 - i. Therapeutic agent

- ii. Sweet dye
 - iii. Flavoring agent
 - iv. Detergent
 - v. Binder
 - vi. Water
 - vii. Humectant
 - viii. Abrasive
 - d. ADA seal
- XXIV. Toothbrushes and Toothbrushing
 - a. Parts of a manual toothbrush
 - i. Head
 - ii. Handle
 - iii. Shank
 - b. Methods for manual tooth brushing
 - i. Bass
 - ii. Stillman
 - iii. Charter
 - iv. Rolls stroke
 - v. Modified Bass
 - vi. Modified Stillman
 - vii. Modified Charter
 - viii. Fones
 - c. Tongue care
- XXV. Interdental Aids
 - a. Gingival embrasures
 - i. Type I
 - ii. Type II
 - iii. Type III
 - b. Interdental aids
 - i. Dental floss and tape
 - ii. Floss holders and threaders
 - iii. Toothpicks and wooden wedges
 - iv. Rubber tip stimulators
 - v. Interdental brushes and tips
 - vi. End-tuft, single-tuft brushes
 - vii. Tongue cleaners
- XXVI. Dental Hygiene Care Plan
 - a. Dental hygiene process of care
 - i. Assessing
 - ii. Diagnosing
 - iii. Planning
 - iv. Implementing
 - v. Evaluating
 - vi. Documenting
 - b. Dental hygiene diagnosis
 - c. Care Plan
 - i. Link dental hygiene diagnoses to the care plan
 - ii. Establish priorities
 - iii. Set client-oriented goals and evaluate measures

- iv. Select evidence-based dental hygiene interventions
 - v. Establish an appointment schedule
 - d. Documentation
 - i. Significance to the process of care
 - ii. Practitioner liability.
 - iii. Informed consent
 - iv. Informed refusal
- XXVII. Patient Sequence
- XXVIII. Exposing, processing, and interpreting radiographs.
- XXIX. Each student must complete competency skill evaluations for each of the following procedures:
 - a. Periodontal probe
 - b. Universal scaler
 - c. Area specific
 - d. Sickles: H6/7 and 204S
 - e. Vital signs
 - f. Explorer and mouth mirror
 - g. Patient operator positioning
 - h. Compressed air
 - i. Coronal polishing
 - j. Fluoride

INSTRUCTIONAL METHODS:

- Demonstration
- Visual aids
- Clinical practice of skills
- Clinical practical evaluation
- Lecture
- Power Points
- Class discussion
- Demonstration
- Visual aids - videos, models, slides
- Exams and quizzes
- Problem solving exercises

INSTRUCTIONAL MATERIALS:

Bowen, D. M., & Pieren, J. A. (2019). *Darby and Walsh Dental Hygiene: Theory and Practice*, (5th ed.). Elsevier Inc.

Nield-Gehrig, J. (2012). *Fundamentals of Periodontal Instrumentation & Advanced Root Instrumentation* (7th ed.). Jones & Bartlett Learning.

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

The following grading scale will be used as a guide in determining the final grade for this course:

A= 92-100

B= 83-91

C= 75-82

D= 68-74

F= 67 and below

OTHER REFERENCES

Blue, C. M. (2017). *Darby's Comprehensive Review of Dental Hygiene* (8th ed.). Elsevier Inc.