DIVISION: Workforce Development

COURSE: DLA 1208 Preventative II-Coronal Scaling

Date: Spring 2019

Credit Hours: 2

Prerequisites: Consent of the Program Coordinator

Delivery Method:
- Lecture 1 Contact Hours (1 contact = 1 credit hour)
- Lab 2 Contact Hours (2-3 contact = 1 credit hour)
- Blended

Offered: Fall Spring Summer

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

CATALOG DESCRIPTION:
This course will include areas of study in dental anatomy, public health dentistry, medical history, dental emergencies and managing the pediatric patient. It will stress the importance of ergonomics, fulcrums and instrumentation necessary to remove calculus and plaque supragingivally from the coronal portion of the tooth. This course will also include an outcome assessment examination that demonstrates competency. There are four pathways for enrollment in this course. Contact the Program Coordinator to document your pathway.
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 appreciate 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. Demonstrates a comprehensive understanding of dental anatomy.
   1.1. Name and identify the four types of teeth and their functions.
   1.2. Name and identify the tissues that compose the teeth
   1.3. Name and identify the location of the various tooth surfaces, line angles, and point angles.
   1.4. Identify and differentiate the arrangement of teeth into dentitions, arches, quadrants and sextants.
   1.5. Explain and demonstrate the ability to properly use and code teeth using the Universal Numbering System, Palmer and FDI.
   1.6. List and identify how the ideal characteristics of tooth shape and alignment in protecting the periodontium.
   1.7. Know the eruption schedule of the teeth and understand patient concerns related for eruption sequence.
   1.8. Know and identify the three basic occlusal classifications based on first molars and canines.
   1.9. Discuss what causes the shedding of primary teeth and the factors that may lead to the retention of primary teeth.
   1.10. Identify the teeth in terms of the number of cusps, roots and usual and unique anatomical landmarks.

2. Demonstrates a working knowledge of Public Health Dentistry.
   2.1. Discuss population-based dentistry
   2.2. Discuss oral health surveillance
   2.3. Discuss policy development in Dental Public Health (DPH).
   2.4. Discuss community-based disease prevention and health promotion
2.5. Describe the maintenance of the dental safety net
2.6. Identify the role that dental public health plays within dentistry.
2.7. Identify the role that the private practice dentist plays within the dental public health infrastructure and delivery of care systems.
2.8. Identify the core functions and accomplishments of public health and how they align with the ADA Strategic Plan.

3. Demonstrates a comprehensive understanding of the Medical History.
   3.1. Discuss record keeping and documentation
   3.2. Discuss normal ranges in vital signs.
   3.3. Discuss allergies of concern related to anesthetics, latex and antibiotics.
   3.4. Discuss patient disclosure of medical concerns
   3.5. Describe how allergy and medical alerts are noted
   3.6. Describe how to tactfully question abnormalities listed on a medical history

4. Demonstrates a basic understanding and treatment of Dental Emergencies.
   4.1. Discuss possible cause and treatments of Fractured teeth
   4.2. Discuss possible cause and treatments of Traumatic intrusion
   4.3. Discuss possible cause and treatments of Displaced teeth
   4.4. Discuss possible cause and treatments of Avulsed teeth

5. Demonstrates a basic understanding of managing a pediatric patient.
   5.1. Discuss oral hygiene instruction including brushing and nutrition
   5.2. Discuss the ages in which teeth erupt and exfoliate
   5.3. Discuss the maturation of a pediatric patient including mental and emotional age.
   5.4. Discuss behavior management techniques commonly used in a dental office.
   5.5. Discuss the difference between objective and subjective fears.
   5.6. Discuss management of patients with special healthcare needs.

6. Demonstrate a basic understanding of calculus and plaque.
   6.1. Discuss the tools and concepts for oral hygiene assessment, including the significance of hard and soft deposits.
   6.2. Discuss types of oral deposits and explain the oral biofilm formation process.
   6.3. Describe the clinical assessment of oral biofilm.
   6.4. Explain the skills, motivation and compliance needed to successfully manage oral self-care.
   6.5. Compare the available oral hygiene indices, and list the criteria for an effective oral hygiene index.

7. Demonstrates and applies principals in Ergonomics in the dental profession.
   7.1. Discuss environmental factors leading to repetitive strain injury (RSI).
   7.2. Describe modifications in the work environment that minimize RSI and stress.
   7.3. Relate proper grasp and instrument factors to ergonomic principals.
   7.4. Relate proper hand stabilization to ergonomic principals.
   7.5. Modify client positioning based on ergonomic principals and client needs.
   7.6. Demonstrate neutral shoulder, elbow, forearm, and wrist positions.
   7.7. Describe common RSIs in terms of symptoms, risks, prevention and treatment.

8. Demonstrates a comprehensive understanding of instrumentation used in Coronal Scaling.
   8.1. Discuss basic dental hygiene instrument design.
8.2. Classify an instrument and its use based upon variations in instrument shank length, curvature, flexibility, and blade type and blade-to-shank angulation.
8.3. Discuss the classification of instruments including assessment instruments, their design and uses.
8.4. Customize fulcrum placement for a tooth surface.
8.5. Describe treatment instruments and their design and uses
8.6. Explain proper instrument blade adaption and angulation.
8.7. Define the stroke principals of blade angulation, adaption, and activation.
8.8. Describe protective scaling strategies and reinforcement scaling.
8.9. Discuss how to prevent and manage instrument tip breakage.

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

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

<table>
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<tr>
<th>Goals</th>
<th>Outcomes</th>
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<tr>
<td>First Goal</td>
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<td>To recognize what it means to act ethically and responsibly as an individual and as a member of society.</td>
<td>4a, 5a, 5b, 5c, 5d, 5e, 5f</td>
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<td>Second Goal</td>
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<td>To construct a critical awareness of and appreciate diversity.</td>
<td>2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h</td>
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COURSE TOPICS AND CONTENT REQUIREMENTS:
I. Dental anatomy
   a. Types of teeth
      i. Incisors
      ii. Canines
      iii. Premolar
      iv. Molar
   b. Tissues
      i. Enamel
      ii. Dentin
      iii. Cementum
      iv. Pulp
c. Surfaces, line angles, point angles
   i. Mesial
   ii. Distal
   iii. Lingual
   iv. Facial/buccal
   v. Occlusal/incisal

d. Tooth coding
   i. Universal numbering
   ii. Palmer
   iii. FDI

e. Tooth shape and alignment
   i. Classifications
      1. Bifurcation
      2. trifurcation
   ii. Keystone of the arch
      1. Mandibular first molar

f. Eruption schedule
   i. Active eruption
   ii. Passive eruption
   iii. Age
   iv. Abnormalities
      1. Attrition
      2. Abrasion

g. Occlusal classifications
   i. Ideal/Normal Occlusion
      1. Class I- Neutrocclusion
   ii. Malocclusion
      1. Class II-Distocclusion
         a. Division I
         b. Division II
      2. Class III- mesiocclusion
   iii. Occlusal deviations
      1. Open bite
      2. Over bite
      3. Over jet
      4. Cross bite
      5. Edge to edge
      6. Under jet
      7. Labioversion/buccoversion
      8. Linguoression
      9. Infraversiion
     10. Surpraversion
     11. Torsoversion
h. Shedding of primary teeth
   i. Causes of retention
   ii. Importance
i. Anatomical landmarks
   i. Cusps
   ii. Roots
   iii. Ridge
   iv. Fossa
   v. Groove
   vi. Pit
   vii. Special features

II. Public Health Dentistry
   a. Population based dentistry
   b. Oral health surveillance
   c. Dental Public Health
   d. Community Based disease prevention and health promotion
   e. Dental safety net
   f. Role of dental public health
   g. Role of private practice
      i. Dental public health infrastructure
      ii. Delivery of care systems
   h. Core functions of public health
      i. Alignment with ADA strategic plan

III. Medical History
   a. Record keeping and documentation
   b. Vital signs
      i. Blood pressure
      ii. Pulse
      iii. Respiration
      iv. Temperature
   c. Allergies
      i. Antibiotics
      ii. Anesthetics
      iii. Latex
   d. Disclosure of medical concerns
   e. Allergy and medical alerts
   f. Questioning medical history abnormalities

IV. Dental Emergencies
   a. Emergency treatment for traumatic injuries
      i. Fractured teeth
      ii. Traumatic intrusion
      iii. Displaced teeth
      iv. Avulsed teeth
V. Managing a pediatric patient
   a. Oral Hygiene Instruction
      i. Brushing
      ii. Nutrition
   b. Eruption and exfoliation
   c. Mental and emotional age
      i. Maturity of patient
   d. Behavior management techniques
      i. Tell-show-do
      ii. Voice control
      iii. Distraction
      iv. Nonverbal Communication
      v. Modeling
      vi. Positive Reinforcement
      vii. Gentle restraints
      viii. Mild sedation
      ix. General anesthesia
      x. Frankl’s Behavior Scale
      xi. Wright’s Classification of Behavior Scale
   e. Patient fears
      i. Objective
      ii. Subjective
   f. Special needs patients
      i. Guidelines on Management of Dental Patients with Special Health Care needs from the American Academy of Pediatric Dentistry (AAPD)
      ii. Orofacial disorders or conditions
      iii. Systemic health conditions
      iv. Mental, developmental or physical disability

VI. Calculus and plaque
   a. Hygiene assessment
      i. Hard deposits
         1. Calculus
            a. scaling
      ii. Soft deposits
         1. Plaque
            a. Extrinsic stains
            b. Polishing
   b. Biofilm formation
   c. Assessment of biofilm
   d. Oral self-care
      i. Skills
      ii. Motivation
      iii. Compliance
   e. Oral hygiene index
      i. Criteria
VII. Principals in Ergonomics
   a. Repetitive strain injury
      i. Environmental factors
   b. Modifications to reduce RSI
   c. Grasps
      i. Classification of motion
      ii. Fulcrum
   d. Hand stabilization
      i. Fulcrum
   e. Client positioning
      i. Supine
      ii. Sub-supine
   f. Neutral positioning
      i. Shoulder
      ii. Elbow
      iii. Forearm
      iv. Wrist
   g. Common RSI Symptoms
      i. risks
      ii. prevention
      iii. treatment

VIII. Instrumentation used in Coronal Scaling
   a. Instrument design
   b. Classification of instruments
      i. Shank length
      ii. Curvature
      iii. Flexibility
      iv. Blade type
      v. Blade-to-shank angulation
   c. Assessment instruments
   d. Fulcrum
   e. Treatment instruments
   f. Adaptation and angulation
   g. Stroke principals
      i. Blade Adaptation
      ii. Blade Angulation
      iii. Activation
   h. Protective scaling strategies
      i. Reinforcement scaling
   i. tip breakage
      i. prevention
      ii. management
INSTRUCTIONAL METHODS:
- Didactic Instruction
- Clinical manikin
- Human subject instruction
- Videos
- Hands-on Demonstration

INSTRUCTIONAL MATERIALS:
Public Act 100-0976 Enacted August 19th, 2018

Text:
American Dental Association: Module: Dental Public Health 2015
Dentistry, Dental Practice, and the Community, 7th Edition, 2019
Pediatric Dentistry, 6th Edition, 2018

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:
A= 90-100
B= 80-89
C= 70-79
D= 60-69
F= 0-59

OTHER REFERENCES
**Course Competency/Assessment Methods Matrix**

**[Dept/# Course Name]** | **Assessment Options**
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For each competency/outcome place an “X” below the method of assessment to be used.

<p>| Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below. | Direct/Indirect | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D | D |
| 1. Demonstrates a comprehensive understanding of dental anatomy. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 2. Demonstrates a working knowledge of Public Health Dentistry. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 3. Demonstrates a comprehensive understanding of the Medical History. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 4. Demonstrates a basic understanding and treatment of Dental Emergencies. | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |</p>
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