



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW:** 2006-7      **NEXT REVIEW:** 2014-2015      **STATUS:** A

**COURSE TITLE:** Preclinical Dental Hygiene

**COMMON COURSE NUMBER:** DEH 1002

**CREDIT HOURS:** 4

**CONTACT HOUR BREAKDOWN**

*(per 8 week term)*

**CLOCK HOURS:** n/a

Lecture: 4    Lab: n/a

*(Voc. Course ONLY)*

Clinic: n/a      Other: n/a

**PREREQISITE(S):** n/a

**COREQUISITE(S):** DEH 1003L, DEH 2400, DEH2840L

## **COURSE DESCRIPTION:**

A course designed to provide knowledge of the principles of dental hygiene with a detailed study of instrumentation. The course includes data collection and mastery of beginning techniques in dental patient care.

## **UNIT TITLES**

1. Operation and Maintenance of Equipment
2. Prevention of Disease Transmission
3. Patient/Operator Positioning
4. Introduction to Instrumentation
5. Use of Explorers
6. Use of Curets
7. Use of Scalers
8. Use of Periodontal Probe/Charting
9. Personal, Medical & Dental History
10. Vital Signs
11. Dental Charting/IOEO



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## **ASSESSMENT:**

### GRADING:

Grades will be determined by the following:

Unit Exams	45%
Written Report	15%
Class Participation	10%
Final Exam	30%

The student's letter grade for this course will be determined by the departmental percentage scale:

92-	100	=	A
83-	91	=	B
75-	82	=	C
66-	74	=	D
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			F



**Common Course Number: DEH 1002**

**UNITS**

**Unit 1          Operation and Maintenance of Equipment**

**General Outcome:**

**1.0      The student shall:** Demonstrate correct operation and maintenance of equipment.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 1.1**    Describe and identify operatory equipment.
- 1.2**    Identify switches for adjustment of chair back, height and swivel movement of the patient chair.
- 1.3**    Identify view box and power source.
- 1.4**    Identify treatment light source.
- 1.5**    Locate and describe uses of bracket table and handpiece hose attachments.
- 1.6**    Identify the air water syringe and describe uses of air and water during dental treatment.
- 1.7**    Describe maintenance techniques necessary for slow speed handpieces.
- 1.8**    Describe the high and low velocity suction and proper maintenance of each.
- 1.9**    Describe the closed water source and proper maintenance of the water bottle and water lines.
- 1.10**   Describe a secured operatory unit.





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- 2.11 Discuss the four stages of bacterial growth as illustrated by the phases of a growth curve.
- 2.12 Explain the pattern of death and its effect on disinfection and sterilization.
- 2.13 Discuss the time-temperature relationship with reference to the susceptibility of various microorganisms and spores to heat.
- 2.14 List and explain the physical and chemical factors influencing antimicrobial action.
- 2.15 Discuss the criteria that determine the selection of an antimicrobial chemical agent.
- 2.16 Explain how bacterial spores are affected by sterilization and disinfection.
- 2.17 Explain proper handling of dental hygiene instruments, contaminated gauze, suction tips and other products used on a patient.
- 2.18 Discuss the importance of maintaining a clean patient napkin.
- 2.19 Describe the steps involved in operatory disinfection and barrier placement prior to seating the dental hygiene patient.
- 2.20 Describe the proper steps in maintaining an aseptic operatory environment during the dental hygiene appointment.
- 2.21 Describe the steps involved in the disinfection and clean up of the dental operatory and instrument preparation for sterilization.



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**Unit 3 Patient/Operator Positioning**

**General Outcome:**

**3.0 The student shall:** Demonstrate the basic concepts of instrumentation including correct patient and operator positioning and light positioning.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 3.1** Describe the procedure for seating, positioning, and dismissing the patient.
- 3.2** Define supine position.
- 3.3** Describe the correct patient position for working on the mandible and maxilla.
- 3.4** List and describe all areas of the oral cavity that are accessible from the eight o'clock position.
- 3.5** List and describe all areas of the oral cavity that are accessible from the eleven o'clock position.
- 3.6** Define the terms "surfaces towards" and "surfaces away".
- 3.7** Describe the correct placement of the dental light when working on the maxilla and the mandible.
- 3.8** Describe proper posture and body alignment when working as the operator.
- 3.9** Describe proper chair position prior to dismissing the patient.



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**Unit 4 Introduction to Instrumentation**

**General Outcome:**

**4.0 The student shall:** Demonstrate the basic concepts of instrumentation including correct patient and operator positioning, light positioning, grasp, fulcrum, adaptation, and stroke.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 4.1 Name the three major parts of an instrument.
- 4.2 Describe the modified pen grasp.
- 4.3 List the purposes of a fulcrum.
- 4.4 Explain how to choose a location for a fulcrum and the variations that may be required.
- 4.5 Define adaptation, angulation, lateral pressure, and stroke.
- 4.6 Recognize vertical and oblique strokes.
- 4.7 Designate in which areas of the mouth the pull, roll, and pivot strokes are used.
- 4.8 Designate the correct positioning of the patient and the operator for instrumentation in the six areas of the mouth.
- 4.9 Identify three types of mirror surfaces.
- 4.10 Name four uses of the mouth mirror.
- 4.11 List the uses for the air syringe.
- 4.12 Describe the technique for the use of air.
- 4.13 List the precautions that are necessary when using air.



**Unit 5      Use of Explorers**

**General Outcome:**

**5.0      The student shall:** Demonstrate correct use of explorers.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 5.1** List the uses of an explorer.
- 5.2** Identify the working end, shank, and handle off an explorer.
- 5.3** Describe the Number 17 explorer and list its uses.
- 5.4** List the areas of the mouth in which the Number 17 explorer can be used.
- 5.5** Describe the Number 23 explorer and list its uses.
- 5.6** Describe the Number 11/12 explorer and list its uses.
- 5.7** Name three ways irregularities in the teeth can be detected utilizing an explorer.
- 5.8** Describe procedures for supragingival and subgingival exploring.
- 5.9** State the correct angle of the shank in relation to the tooth when exploring.
- 5.10** Discuss the use of the explorer in patient assessment.
- 5.11** Discuss the use of the explorer in calculus detection.
- 5.12** Discuss the use of the explorer in evaluation of scaling procedures.



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## Unit 6 Use of Curets

### General Outcome:

**6.0 The student shall:** Demonstrate correct use of curets.

### Specific Measurable Learning Outcomes:

**Upon successful completion of this unit, the student shall be able to:**

- 6.1** Draw and label the working end of a curette including the cutting edges, face, back, cross section, internal angles, and toe.
- 6.2** Contrast between the shanks of curettes designed for anterior teeth and those designed for posterior teeth.
- 6.3** Compare the universal and area specific curettes and give examples of each.
- 6.4** List the uses of a curette.
- 6.5** Describe the angulations', adaptation and stroke utilized when using the curette for scaling and root planning.
- 6.6** Discuss the techniques for use of a curette while scaling and root planning.
- 6.7** Define: root morphology, concavity, convexity, ribbon effect, CEJ, axial positioning, furcation.
- 6.8** Discuss the significance of root morphology to the dental hygiene process.
- 6.9** Identify all multi-rooted teeth in the permanent dentition
- 6.10** Name the teeth that are trifurcated and identify the trifurcations on each of those teeth.
- 6.11** Name the teeth that are bifurcated and identify the bifurcations on each of those teeth.



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**Unit 7      Use of Scalers**

**General Outcome:**

**7.0 The student shall:**      Demonstrate correct use of explorers, curettes, sickles, and the periodontal probe.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 7.1** Draw and label the working end of a curved sickle scaler and a straight sickle scaler including the cutting edges, face, internal angles, tip, and back.
- 7.2** Describe the cross section of a sickle scaler.
- 7.3** Differentiate between the shanks of sickle scalers designed for an anterior teeth and for posterior teeth.
- 7.4** List the uses of a sickle scaler.
- 7.5** State contraindications to the use of a sickle scaler.
- 7.6** Specify the angulation, adaptation, and stroke of the sickle scaler utilized.



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**Unit 8 Use of Periodontal Probes/ Charting**

**General Outcome:**

**8.0 The student shall:** Demonstrate correct use of the periodontal probe charting the probe findings.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 8.1** List the uses of a periodontal probe.
- 8.2** Describe the characteristics of a straight working end probe.
- 8.3** Differentiate among the various probe calibrations.
- 8.4** Indicate the six areas of the tooth at which probe readings are taken.
- 8.5** Describe the stroke used in the periodontal assessment of a patient.
- 8.6** Describe the use of the probe for the following assessments:

Measure the size of a lesion  
Position of gingival margin (recession)  
Position of junctional epithelium  
Bleeding  
Exudate



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**Unit 9      Personal, Medical and Dental History**

**General Outcome:**

- 9.0      The student shall:** Obtain a personal, dental, and medical history, and describe application information for dental hygiene treatment planning.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 9.1** Compare the system, disease and symptom. Oriented approaches to medical history questions.
- 9.2** Discuss the general pathology and implications for dental hygiene treatment of the following conditions:
- |                         |                           |
|-------------------------|---------------------------|
| Anemia                  | Respiratory Problems      |
| Dizziness/Fainting      | Asthma                    |
| Diabetes                | Blood Disease             |
| Arthritis               | Hepatitis                 |
| Ulcer                   | Kidney Disease            |
| Epilepsy                | Liver Disease             |
| Cancer                  | Venereal Disease          |
| Sinus Problems          | Mononucleosis             |
| Rheumatic Fever         | HIV/AIDS                  |
| Abnormal Blood Pressure | Alcoholism/Drug Addiction |
| Heart Disease           | Artificial Implants       |
| Tuberculosis            | Radiation Treatment       |
- 9.3** Specify the standard regimen for prophylactic and antibiotic premedication.
- 9.4** Identify the medical disorders that require consultation with patient's physician before delivery of care.
- 9.5** Recognize the names, classifications, and uses of commonly used drugs
- 9.6** Describe the three areas of a patient's history and their important to Dental hygiene treatment.
- 9.6** Discuss the important of obtaining and updating an accurate medical history.



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**Unit 10      Vital Signs**

**General Outcome:**

- 10.0    The student shall:** Take vital signs, complete proper documentation, and describe application of information for dental hygiene treatment planning.

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 10.1**    Categorize whether a blood pressure reading is within the normal range, mild, moderate, or severe hypertension, or borderline isolated or isolated systolic hypertension.
- 10.2**    Discuss the implications of a patient's blood pressure on dental hygiene treatment and physician referral.
- 10.3**    Explain why it is sometimes necessary to repeat taking blood pressure and the need to do so on the opposite arm.
- 10.4**    Describe the importance of taking vital signs prior to dental hygiene treatment.
- 10.5**    Describe the proper technique for taking blood pressure, pulse and respiration.
- 10.6**    List normal ranges for pulse and respiration.
- 10.7**    Describe proper documentation of vital signs in the patient's chart.
- 10.8**    Discuss taking and recording of vital signs by the dental hygienist according to Florida Statutes Chapter 466, Rule 21G.



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## **Unit 11      Dental Charting/IOEO**

### **General Outcome:**

- 11.0    The student shall:**      Perform an extraoral and intraoral examination including dentition charting of an assigned patient, completing proper documentation and describing application of information for the dental hygiene treatment plan.

### **Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 11.1** Draw the symbols used in the dental clinic for various oral conditions  
Including:
- |                             |            |
|-----------------------------|------------|
| dental caries               | veneer     |
| restorations                | implant    |
| defective restorations      | erosion    |
| overhangs                   | abrasion   |
| mobility                    | abfraction |
| food impaction              |            |
| rotated tooth               |            |
| missing teeth               |            |
| unerupted or impacted teeth |            |
| drift or migration          |            |
| open contact                |            |
| crown and bridge            |            |
- 11.2** Recognize dental conditions from radiographs.
- 11.3** Identify examination findings that require further information prior to delivery of dental hygiene care
- 11.4** Describe the importance of taking and updating an accurate dental chart.
- 11.5** State the incidence of oral cancer in males and females in the United States.
- 11.6** List the objectives of an oral examination.
- 11.7** State the reasons for a systematic sequence of examination and then list that sequence.
- 11.8** Describe observations that should be made extra orally and explain their significance to the dental hygiene appointment.



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- 11.9** Explain what to observe and the significance of the examination of the lips, oral mucosa, tongue, floor of the mouth, palates, tonsillar areas, and pharynx to the dental hygiene appointment.
- 11.10** Differentiate among elevated, depressed and flat lesions.
- 11.11** Define localized, generalized, single lesions and multiple lesions.
- 11.12** Differentiate among the following non-blisterform lesions:
- |        |        |
|--------|--------|
| Papule | tumor  |
| Nodule | plaque |
- 11.13** Differentiate among the following blisterform lesions:
- |         |        |         |
|---------|--------|---------|
| Vesicle | bullae | pustule |
|---------|--------|---------|
- 11.14** Define sessile and pedunculated.
- 11.15** Differentiate between ulcer and erosion.
- 11.16** Define macule.
- 11.17** Define the following terms: crust, psuedomembrane, erythema, polyps, exophytic, torus, punctuate, indurated, papillary, verrucous, petechiae.
- 11.18** List the most common sites of oral cancer in order of occurrence.
- 11.19** Name five forms of oral cancer.
- 11.20** Contrast an excisional and incisional biopsy.
- 11.21** List the indications for biopsy.