



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

LAST REVIEW: 2006-7

NEXT REVIEW: 2011-12

STATUS: A

COURSE TITLE: PRECLINICAL ^(A, I, D)

COMMON COURSE NUMBER: DEA 0025

CREDIT HOURS: n/a

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS: 60

(Voc. Course ONLY)

Lecture: 3.8

Lab: n/a

Clinic: n/a

Other: n/a

PREREQUISITE(S): N/A

COREQUISITE(S): DES 0840, DES 0100, DEA 0025L

PRE/COREQUISITE(S):

COURSE DESCRIPTION:

Designed to orient the student to the dental office, the use and sterilization of all instruments and equipment used in the practice of dentistry.

UNIT TITLES

1. The Dental Office
2. The Dental Equipment
3. Disease Transmission
4. Cleaning and Disinfection Procedures
5. Sterilization Procedures
6. Oral Evacuation
7. Handpieces and Rotary Cutting Instruments
8. Instrument Transfer Techniques
9. Diagnosis & Treatment Planning
10. Oral Prophylaxis
11. Local Anesthesia
12. Restorative and Cosmetic Dentistry



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13. Removable Prosthodontics
14. Oral and Maxillofacial Surgery
15. Dental Implants
16. Endodontics
17. Periodontics
18. Fixed Prosthodontics
19. Special Needs Patient



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ASSESSMENT:

Grades will be determined by the following:

	Unit Exams	75%
	Final Exam	20%
Class Participation		05%

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

F



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UNITS

Unit 1 The Dental Office

General Outcome:

1.0 The student shall: Discuss dental office designs and the psychological effects this has on patients.

Specific Measurable Learning Outcomes:

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

- 1.1** List the six main rooms in a dental office.
- 1.2** Describe the purpose and main function of each room in the dental office.
- 1.3** Explain how cleanliness, color, artwork and music influence the patient psychologically.
- 1.4** Provide information for patient's seeking care in our dental clinic setting.



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Unit 2 The Dental Equipment

General Outcome:

- 2.0 The student shall:** Identify equipment/components of a dental operatory and explain the importance of operatory content and arrangement.

Specific Measurable Learning Outcomes:

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

- 2.1** Discuss the different kinds of dental equipment found in dental offices.
- 2.2** State the function for the parts of the dental unit, chair, stools, operatory cabinets, x-ray units and view boxes.
- 2.3** State the care used in the basic cleaning of the dental equipment.
- 2.4** Explain the importance of operatory cabinet content, arrangement and its effects on the various dental procedures.
- 2.5** Explain the importance of maintaining infection control when removing anything from cabinet areas.
- 2.6** Match selected dental equipment to the function/use in the dental operatory.



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Unit 3 Disease Transmission

General Outcome:

- 3.0 The student shall:** Recognize the communicable diseases and their mode of transmission in the dental environment.

Specific Measurable Learning Outcomes:

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

- 3.1** Describe the mode of transmission for infectious diseases.
- 3.2** Identify the infectious diseases affecting the safety and treatment of patients in the dental office.
- 3.3** List the infectious diseases that have a vaccination available for protection of the dental team.
- 3.4** Explain the procedures for treating a high risk patient.
- 3.5** Discuss the methods utilized for infection control in the dental operator.
- 3.6** Compare the effectiveness of disinfection vs. sterilization of dental instruments.
- 3.7** Differentiate the barriers used to protect the dental team and the patient.
- 3.8** Discuss the OSHA/CDC guidelines used to protect the dental team.



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Unit 4 Cleaning and Disinfection Procedures

General Outcome:

- 4.0 The student shall:** Explain the differences of precleaning, disinfection and sterilization of dental instruments and equipment

Specific Measurable Learning Outcomes:

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

- 4.1** Explain the purpose of cleaning and disinfecting the dental equipment.
- 4.2** Identify the different levels of disinfectants.
- 4.3** Compare the advantages and disadvantages of disinfectants.
- 4.4** Explain the purpose of holding solutions and ultrasonic cleaning of dental instruments.
- 4.5** List factors that can influence the effectiveness of chemical disinfectants.
- 4.6** Name the safety factors to be used when preparing and using the chemical disinfectants and cleaners.
- 4.7** Identify the dental operatory surfaces and equipment that must be disinfected prior to seating a patient.
- 4.8** List the steps for cleaning an instrument before it is sterilized.
- 4.9** Contrast surface cleaning and surface disinfection.



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Unit 5 Sterilization Procedures

General Outcome:

5.0 The student shall: Explain the operation of the various sterilizers.

Specific Measurable Learning Outcomes:

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

- 5.1** Explain the purpose of sterilization.
- 5.2** Explain the purpose of emulsion solutions and describe instruments needing this treatment.
- 5.3** Identify special consideration utilized when sterilizing handpieces and sharp instruments.
- 5.4** List the steps used in the operation of the autoclave/chemiclave, dri-clave, statim, and KaVoKlave sterilizers.
- 5.5** Discuss the procedures utilized for an instrument that cannot be sterilized.
- 5.6** Identify the hazards of operating the dental sterilizers.
- 5.7** Explain the importance of separating and maintaining sterilization areas for handling dental instruments.
- 5.8** Explain the monitoring systems utilized to assure sterilization has been achieved.



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Unit 6 Oral Evacuation

General Outcome:

- 6.0 The student shall:** Discuss the importance of evacuation grasp, positioning, and accessory instruments needed to achieve visibility.

Specific Measurable Learning Outcomes:

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

- 6.1** State the purpose for the evacuation system.
- 6.2** List the three types of evacuation systems found in dental offices.
- 6.3** Identify the various tips and grasps utilized for evacuating the oral cavity.
- 6.4** Discuss the various approaches used for evacuation of the oral cavity.
- 6.5** Identify the items utilized for maintaining visibility for the operator during a dental procedure.
- 6.6** Discuss the importance of properly cleaning the evacuation system.



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Unit 7 Handpieces and Rotary Cutting Instruments

General Outcome:

- 7.0 The student shall:** Contrast the shank designs utilized in the straight attachment, contra-angle and high-speed handpieces and determine the correct maintenance procedures for the dental handpieces and their attachments.

Specific Measurable Learning Outcomes:

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

- 7.1** Name the types of handpieces and identify their designs and uses.
- 7.2** Explain the preparation and sterilization needs for each of the handpieces and burs.
- 7.3** State the three parts of a bur.
- 7.4** Distinguish the shank design used in each handpiece.
- 7.5** Name the bur shapes and number series.
- 7.6** Contrast the uses of the different types of burs.
- 7.7** Identify accessories for the dental handpieces and their attachments.



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Unit 8 Instrument Transfer Techniques

General Outcome:

- 8.0 The student shall:** Name the grasps and instrument transfer methods utilized in four-handed dentistry.

Specific Measurable Learning Outcomes:

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

- 8.1** List the three parts of a dental instrument.
- 8.2** Explain the purpose of instrument transfer.
- 8.3** List the four grasps used to hold instruments.
- 8.4** Discuss instrument transfer methods.
- 8.5** State the importance in the use of a fulcrum.
- 8.6** Describe the function of various dental instruments.



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Unit 9 Diagnosis and Treatment Planning

General Outcome:

- 9.0 The student shall:** Explain the components of what goes into a treatment plan and case presentation for the dental patient and what the role of the dental assistant is.

Specific Measurable Learning Outcomes:

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

- 9.1** List the procedures performed during the first visit of a new patient in an "ideal" dental office.
- 9.2** Discuss the information included in a treatment plan.
- 9.3** Explain the responsibilities of a dentist in case presentation.
- 9.4** Describe the responsibilities delegated in an emergency situation in an "ideal" dental office.
- 9.5** Name the dental instruments used during diagnosis and treatment planning.
- 9.6** Discuss the responsibilities of the dental assistant regarding the recording of the diagnosis and treatment planning procedures.



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Unit 10 Oral Prophylaxis

General Outcome:

- 10.0 The student shall:** Explain the various techniques utilized to perform a dental prophylaxis and name the instruments utilized in performing a dental prophylaxis

Specific Measurable Learning Outcomes:

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

- 10.1** Differentiate the “prophylaxis” and the “dental prophylaxis”.
- 10.2** Discuss the purpose and importance of a dental prophylaxis.
- 10.3** Name the instruments utilized in the dental prophylaxis and their uses.
- 10.4** Define the terms scaling, curettage and root planning.
- 10.5** List the steps in completing an oral prophylaxis procedure.
- 10.6** Explain the importance of recording the procedure, materials utilized and preventive aids that were given to the patient following the prophylaxis.



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Unit 11 Local Anesthesia

General Outcome:

- 11.0 The student shall:** Explain local anesthesia and relate the dental anesthetics to compromised medical history conditions.

Specific Measurable Learning Outcomes:

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

- 11.1** Discuss what local anesthesia is and its role in dentistry.
- 11.2** Differentiate the various sites and injection methods utilized.
- 11.3** Explain the use and value of topical anesthesia.
- 11.4** Discuss the armamentarium used in the local anesthesia procedure.
- 11.5** Name the various anesthetic solutions used in the dental clinic.
- 11.6** Specify which local anesthetic solutions are best used for specific procedures.
- 11.7** Explain the vasoconstrictor and when it is contraindicated.
- 11.8** List the steps in the local anesthesia procedure.



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Unit 12 Restorative and Cosmetic Dentistry

General Outcome:

- 12.0 The student shall:** Recognize the instruments utilized in operative dental procedures and discuss the principle of cavity preparations.

Specific Measurable Learning Outcomes:

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

- 12.1** List the seven steps in cavity preparation.
- 12.2** State the five objectives of operative dentistry.
- 12.3** Name the instruments and materials used in an amalgam procedure and identify their uses.
- 12.4** List the sequence of steps in an amalgam procedure.
- 12.5** Name the instruments and materials used in a composite procedure and identify their uses.
- 12.6** List the sequence of steps for the various composite procedures.
- 12.7** Explain the importance of recording on the patient chart the sequential procedure and materials used in these dental procedures.
- 12.8** Explain the importance of proper clean up and waste disposal of contaminated items.



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Unit 13 Removable Prosthodontics

General Outcome:

- 13.0 The student shall:** Contrast the difference between a fixed bridge and a removable partial denture and state the disadvantages of wearing a full denture.

Specific Measurable Learning Outcomes:

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

- 13.1** Contrast the difference between a full denture and a partial denture.
- 13.2** Explain the difference between a reline and a tissue conditioner procedure.
- 13.3** Identify the instruments and their uses in the construction of a removable prosthesis.
- 13.4** Define the uses of the various dental materials utilized in the construction of a removable prosthesis.
- 13.5** Determine the procedures done at each of the office visits to construct the removable prosthesis.
- 13.6** Explain the correct recording on the patient's chart for each of the office visits.



Unit 14 Oral and Maxillofacial Surgery

General Outcome:

- 14.0 **The student shall:** State the types of surgical procedures done in oral surgery and the instruments used.

Specific Measurable Learning Outcomes:

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

- 14.1 List five reasons that teeth must be extracted.
- 14.2 Recognize the need for premedications and compromising medical conditions that would contraindicate the surgical procedure.
- 14.3 Name four surgical procedures related to Oral Pathology.
- 14.4 Name the instruments used and the sequential steps in the various surgical procedures.
- 14.5 Explain the use of the surgical instruments in the procedures.
- 14.6 List the Post-Operative Instructions given to a patient after a surgical procedure.
- 14.7 Explain the write up of the patient's chart for a surgical procedure.
- 14.8 Explain the importance of proper clean up and waste disposal of contaminated items.



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Unit 15 Dental Implants

General Outcome:

- 15.0 The student shall: State the reasons for, the different types of and the home care procedures for dental implants.**

Specific Measurable Learning Outcomes:

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

- 15.1** List the indications for Dental Implants.
- 15.2** List the contraindications for Dental Implants.
- 15.3** Identify the criteria for the selection of patients to receive dental implants.
- 15.4** Identify the different types of dental implants.
- 15.5** Describe the surgical procedures for implantology.
- 15.6** Describe the home care procedures and follow up visits required after receiving dental implants.



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Unit 16 Endodontics

General Outcome:

- 16.0 The student shall:** Compare the advantages of endodontic treatment to the extraction of a tooth and recognize the instruments utilized in an endodontic procedure.

Specific Measurable Learning Outcomes:

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

- 16.1** Give two reasons why a tooth would need a root canal.
- 16.2** State two reasons why a root canal would not be done.
- 16.3** Explain the difference between a "vital" and a "non-vital" tooth.
- 16.4** List the sequential steps in doing an endodontic procedure.
- 16.5** Differentiate the instrumentation and procedures of the first and second endodontic procedure.
- 16.6** Explain the instrumentation utilized for entry into the pulp chamber and its canals.
- 16.7** Discuss what considerations must be taken to restore a non-vital tooth.



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Unit 17 Periodontics

General Outcome:

17.0 The student shall: Discuss the clinical manifestations of periodontal disease and the treatment plans for this condition.

Specific Measurable Learning Outcomes:

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

- 17.1** State the two main reasons why people lose their teeth.
- 17.2** Name four factors that contribute to periodontal disease.
- 17.3** Explain the theory of the periodontal examination.
- 17.4** Discuss various treatments available for periodontal disease.
- 17.5** Explain the importance of recording the periodontal treatment plan, procedures and materials utilized for the patient.



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Unit 18 Fixed Prosthetics

General Outcome:

- 18.0 The student shall:** Contrast the difference between a fixed bridge and a removable partial denture.

Specific Measurable Learning Outcomes:

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

- 18.1** Discuss why crown and bridge restorations are the ideal way to restore missing teeth or tooth structure.
- 18.2** List the various types of restorations that are included in crown and bridge.
- 18.3** Name the instruments and equipment used in the crown and bridge procedures; including their use and care.
- 18.4** List the steps in the construction of single or multiple crown and bridge procedures.
- 18.5** Explain the importance of recording the procedures and materials utilized in the crown and bridge appointment.



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Unit 19 Special Needs Patient

General Outcome:

19.0 The student shall: Discuss the care of the special needs patient.

Specific Measurable Learning Outcomes:

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

- 19.1** Explain the importance of a thorough medical & dental history.
- 19.2** Name the various conditions of special needs patients in children.
- 19.3** List the various conditions of the special needs patients of adults.
- 19.4** Explain the various dental treatment modifications for each specific condition of the special needs patient.