Miami Dade College

Course Description

DES 1200L | Dental Radiology Laboratory | 2.00 credits

Laboratory participation will be utilized to develop proficiency in the various techniques of positioning, exposing, processing, mounting, and preliminary interpretation of radiographs acquiring clinical proficiency on manikins before working with patients. The Lexi-comp clinical reference will be used in the lab prior to initiating the patient requirements.

Course Competencies

Competency 1: The student will demonstrate the knowledge and comprehension of identifying their role and responsibilities in meeting the needs for taking dental radiographs on a patient by:
1. Understanding the effects of radiation exposure on each patient
2. Minimizing full-mouth series to no more than once every three years and bitewing series to once a year, unless specifically requested in writing by the family dentist or prior approval by the supervising dentist
3. Taking and processing radiographic series with competency in order to reduce any errors that could result in the patient being exposed to additional radiation

Competency 2: The student will demonstrate the knowledge, comprehension and application of equipment, patient preparation and safety protocol for taking a dental radiographic series by:
1. Demonstrating the proper infection control protocol for radiology, including before, during and after patient treatment
2. Demonstrating the correct assembly of the XCP (Extension Cone Paralleling Technique) equipment
3. Demonstrating the correct assembly of the BAI (Bisecting Angle Instrument) equipment
4. Identifying the correct operation of the control panels for the following x-ray machines: Gendex 765. Orthopos 3 Panorex
5. Demonstrating competence in protecting both the patient and operator from unnecessary ionizing radiation by following proper safety protocol

Competency 3: The student will demonstrate the knowledge, comprehension and application of identifying human dentition and normal anatomical landmarks by:
1. Demonstrating the correct placement for a full-mouth series of dental radiographs on a Dexter manikin using the XCP Technique, according to the criteria set forth in lecture and laboratory
2. Mounting the dental radiographs in proper sequence as set forth in lecture and laboratory
3. Demonstrating the correct placement for a full-mouth series of dental radiographs on a Dexter manikin using the BAI (Bisecting Angle Instruments) and XCP Technique, according to the appropriate criteria
4. Demonstrating the correct placement for a Pedo/Mixed full-mouth series of dental radiographs on a Pedo Dexter manikin using the XCP Technique, according to the appropriate criteria

Competency 4: The student will demonstrate the knowledge, comprehension and application of exposing dental radiographs by:
1. Demonstrating the correct exposure technique for a full-mouth series of dental radiographs on a Dexter manikin using the Siemens Heliodent MD x-ray machine and XCP Technique, according to the criteria set forth in lecture and laboratory
2. Demonstrating the correct exposure technique for a full-mouth series of dental radiographs on a Dexter manikin using the Gendex 765 x-ray machine and BAI (Bisecting Angle Instruments) and XCP Technique, according to the appropriate criteria
3. Demonstrating the correct exposure technique for a full-mouth series of dental radiographs on a Pedo Dexter manikin using the Gendex 765 x-ray machine and XCP Technique, according to the appropriate criteria

Updated Fall 2025

<u>Learning Outcomes:</u>

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Formulate strategies to locate, evaluate, and apply information