

Course Description

DES0205 | Dental Radiology | 2.00 credits

This course is designed to provide students with a study of the principles of radiology, theory, and operation of X-ray equipment, darkroom procedures, film storage, and the hazards and precautions involved in dental radiology.

Course Competencies

Competency 1: The student will demonstrate knowledge of Radiation Health and Safety Standards processing by:

- 1. Explaining Radiation Health and Safety Standards and OSHA guidelines while exposing and processing diagnostic radiographs
- 2. Explaining the dental x-ray machine and its function and operation as related to patient safety
- 3. Explaining the biological effects of X-rays
- 4. Explaining the ALARA concept
- 5. Demonstrating appropriate infection control considerations and protocols for radiographs

Competency 2: The student will demonstrate knowledge of radiography exposure and processing by:

- 1. Summarizing how to expose and process diagnostic intra-oral radiographs
- 2. Summarizing how to expose and process diagnostic extra-oral radiographs
- 3. Explaining how to assess patient radiographic needs
- 4. Demonstrating techniques for bitewings (horizontal and vertical), occlusal films, and periapical including accepted methods with an emphasis on paralleling techniques for periapical
- 5. Explaining the supplementary techniques and patient management including endodontic, localization, edentulous, periodontics, and techniques for difficult anatomy and patients with disabling conditions

Competency 3: The student will demonstrate knowledge of mounting dental radiographs by:

- 1. Explaining how to mount, label, and document radiograph exposures accurately
- 2. Demonstrating the ability to self-critique work and discuss improvement and correction needs
- 3. Identifying the different forms of dental radiograph mounts

Learning Outcomes:

• Solve problems using critical and creative thinking and scientific reasoning

Updated: Fall 2025