

# DHYG 118 : Radiology I

## **Credits 2**

This course is designed to examine the fundamentals of dental radiography. Topics include history, physical, biological, radiation safety, legal and quality assurance considerations. Clinical applications include exposure techniques, film processing, digital techniques, along with interpreting and correcting technical errors. The radiology lab will also include obtaining diagnostic quality exposures on the dental mannequin DXTR. This class may include students from multiple sections.

## **Course Outcomes**

Describe the history and theory of dental radiology, to include discovery, characteristics, biology, and physics.

Describe the federal, state, and local regulations and identify the components of dental x-ray equipment.

Discuss radiation protection and safety guidelines using (MPD) maximum permissible dose and ALARA concept.

Define the different types and uses of dental film, the manual processing procedure, and film mounting.

Explain the fundamentals, purpose, and use of digital imaging.

Demonstrate infection control protocols for the operator and patient in the lab setting.

Demonstrate proficiency in dental imaging using paralleling, bisecting, and bitewing techniques to obtain quality diagnostic radiographs in the lab setting.

Identify and describe the appearance of normal anatomy as well as abnormal structures and pathology in radiographic images.

Discuss patient relations, education, informed consent and legal implications as defined for the standard of care in the dental setting.