NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
DNH 130 - ORAL RADIOGRAPHY FOR THE DENTAL HYGIENIST (3 CR.)

Course Description

This course presents a study of physics, biology, safety, and exposure techniques for intra- and extra-oral radiographic surveys. Laboratory provides practice in exposure, processing methods, mounting, and interpretation of normal findings. Lecture 2 hours per week. Laboratory 3 hours per week. Total 5 hours per week.

General Course Purpose

This course provides students with the fundamental background and theory for the safe and effective use of x-ray radiation. Laboratory sessions emphasize the placement, exposing, processing, mounting, and interpretation of dental radiographs.

Course Prerequisites/Co-Prerequisites

None

Course Objectives

Upon completing the course, the student will be able to:

- Discuss the principles of x-ray physics and x-ray production.
- Discuss the characteristics and effects of x-ray radiation.
- Discuss methods of radiation exposure and the importance of patient education.
- Discuss the components, types, sizes, speeds, and uses of dental x-ray films.
- Discuss the methods and the chemicals used for processing dental x-ray films.
- Discuss the importance of quality assurance and quality control.
- Describe and identify anatomical landmarks and structures of the maxillae and mandible.
- Describe and identify radiographic anomalies and pathology.
- Describe and recognize types of radiographic errors.
- Describe and demonstrate basic positioning of the patient, x-ray film, and x-ray tube for the paralleling and bisecting angle techniques.
- Demonstrate the ability to utilize the paralleling and bisecting angle techniques when exposing dental radiographs.
- Demonstrate the ability to place, expose, process, mount, and interpret dental radiographs.
- Demonstrate the ability to expose a full mouth series, a bite-wing series, and an occlusal survey on a manikin.
- Demonstrate the ability to expose a full mouth series on adult patients.
- Demonstrate the ability to expose a bite-wing series and a panoramic radiograph on a pediatric patient.
- Demonstrate the ability to expose a panoramic radiograph on an edentulous or partially edentulous patient.
- Discuss the importance for practicing proper methods of infection control when exposing and processing radiographs.

Major Topics to be Included

- Principles of X-Ray Physics
- The X-Ray Machine, Components, and Function
- Principles and Characteristics of X-Ray Production
- Effects of Radiation Exposure
Methods of Radiation Protection and Patient Education
Dental X-Rays Films
Processing of Dental X-Ray Films
Quality Assurance and Quality Control
Infection Control Methods in Dental Radiography
Intraoral Radiographic Anatomy
Radiographic Anomalies and Pathology
Identification of Radiographic Errors
Intraoral and Extraoral Radiography
Radiography for the Pediatric and Edentulous Patient
Advances in Dental Radiography