

**NorthWest Arkansas Community College**  
**Standard Course Outline / Division of Health Professions**

**Course Number and Title**

**DNTA 1413 Dental Radiography I**

**Course Description:**

Students receive a fundamental knowledge of the basic principles of radiation physics, biological effects of ionizing radiation, safety, radiographic quality assurance, exposure techniques, processing, mounting, and evaluation of finished radiographic films. The student receives practical experience exposing and processing radiographs on manikins and selected patients.

**Prerequisite:**

Students must be enrolled as a student at NWACC. English and Math ACT score of 19 or equivalent. Must be currently enrolled in Dental Assisting Program. Prior coursework in anatomy, physiology, and medical terminology is suggested but not required. Interview and permission of Dental Assisting Program Director is required.

**Credit Hours**

Three (3) credit hours that may not be transferable to other institutions.

**Target Audience**

Adults admitted to the Dental Assisting Program

**Student Learning Objectives:**

Upon successful completion of this course the student will be able to:

- Grasp the historical events of the discovery of x-radiation.
- Grasp the physics of x-radiation.
- Explain radiation safety issues.
- Demonstrate the use of film holders.
- Demonstrate correct intraoral x-ray exposure techniques.
- Demonstrate correct x-ray developing techniques.
- Demonstrate correct x-ray infection control procedures.
- Explain x-ray quality control and quality assurance.
- Discuss legal and ethical issues for x-rays.
- Arkansas RDA Radiology Study Guide
- Arkansas RDA Radiology Test

**Topics:**

- Foundations of Radiography
- Radiographic Equipment
- Radiation Safety
- Digital Imaging
- Dental Film and Processing
- Legal Issues and Radiography
- Quality Assurance
- Infection Control and Radiography

**Required assessment:**

- Observation with instructor evaluation in lab setting
- Observation with instructor evaluation in clinical setting
- Unit exams
- Arkansas RDA Radiology Test
- Comprehensive final exam