Northwest Arkansas Community College

Health Professions Division

Discipline Code
DNTA

Course Number
1413

Course Title
Dental Radiography I

Catalog 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.

Prerequisites
Acceptance into program by interview with program director.

Credit Hours
3 credit hours

Contact hours
25 lecture contact hours; 25 lab contact hours

Load hours
3 load hours

Semesters Offered
Fall

ACTS Equivalent
None

Grade Mode
A-F

Learning Outcomes
- 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 sensor 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.

General Education Outcomes Supported

- Students develop higher order thinking skills.
- Students can employ a variety of sources to locate, evaluate, and use Information.

Standard Practices

Topics list

- Identify historical events in x-radiation development
- Explain basic radiation principles
- Prioritize radiation safety
- Prioritize infection control processes in radiography
- Manipulation and placement of intraoral sensor holders
- Interpret radiographic images, distinguishing anatomical structures
- Correct imaging issues related to placement/exposure
- Apply ethical standards for exposing/storing/sharing of radiographies

Learning activities

- Didactic instruction will be delivered either in the classroom setting or through virtual systems.
- Didactic instruction will include models, manikins, videos, and diagrams to reinforce topics discussed.
- Laboratory exercises will align with the didactic portion of the course.
- Infection Prevention Protocols will be of primary importance and will be integrated into each and every lab process.
- Laboratory exercises will utilize models, manikins, and classmates to locate and identify oral and dental structures.
- Disinfection and sterilization laboratories will utilize standard dental equipment for training and will include equipment safety training.
- Students will learn new terminology and experience varied learning methods to reinforce the General Education outcomes of higher order thinking skills and information literacy.

Assessments

- Final grade will be based on the average of all exams, quizzes, homework, and labs.
- Examinations: Final written exam is comprehensive and scored on a percentage basis. Final Practical exam is comprehensive of all skills/topics covered during course.
- Quizzes: A quiz may be given at any time during the course. Make-up quizzes are at the instructor’s discretion.
- Homework: Assignments may be given at any time during the course and will be due when designated by the instructor. Material turned in after designated time/date will not be accepted and will result in a grade of “0”.
- Labs: Designed for student to gain skill with new procedures. Labs are scored on a Pass/Fail basis. Students must achieve a Pass in order to advance in course.

Grading guidelines

- A=90-100%
- B=80-89%
- C=70-79%

*You must maintain a grade of C or higher to progress in the Dental Assisting Program.