
COURSE PREFIX/NO: DHG 121
COURSE TITLE: Dental Radiography
LEC HRS/WEEK: 2.0
LAB HRS/WEEK: 3.0
CREDIT HRS/SEMESTER: 3.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course provides the application of the principles of radiology with emphasis on exposing, processing, mounting, evaluating, and interpreting dental radiographs. Radiation safety is stressed.

COURSE COMPETENCIES

Upon the successful completion of DHG 121, the student is expected to have a thorough comprehension of and be competent to perform the objectives within the following four modules:

Module I – Radiation Basics

1. The basic principles and concepts of radiation in general and x-radiation in particular.
2. Radiation bio-effects, health, and safety.
3. The effects of ionizing radiation on living tissues.
4. Radiation protection procedures for the operator and the patient.
5. Demonstrate professionalism in dress, conduct, and attitude.

Module II – Equipment, Film and Processing

1. The component parts and workings of the Dental X-ray Machine and the production of x-rays.
2. Technique of proper film processing, handling, and record keeping.
3. Quality assurance procedures.
4. Legal issues related to dental radiography.

Module III – Technique Basics

1. Factors affecting the quality of the x-ray beam and the radiographic image.
2. Intraoral techniques for bitewings, occlusal films, and periapicals including currently accepted methods, but emphasizing the paralleling technique for periapicals.
3. Panoramic radiography and other extraoral radiographic techniques with instruction in interpretation as appropriate.
4. Supplementary techniques and patient management including endodontic, localization, edentulous, pedodontic, and techniques for difficult anatomy and patients with disabling conditions.

5. Selection of appropriate radiographic surveys, film types, duplicating, and record keeping.
6. Alternate imaging modalities.

Module IV – Normal Anatomical Landmarks and Film Mounting

1. The appearances of normal radiographic landmarks, artifacts, and shadows.
2. Developmental abnormalities and basic disease process of teeth and supporting structures.
3. Viewing techniques and principles of interpretation.

REQUIRED MATERIALS

Each student is required to purchase two (2) boxes of size two (2) Kodak Film. This item is to be purchased from smartpractice.com and must be brought to the first clinical radiology session. Students must have film purchase verified by course instructor.

COURSE REQUIREMENTS

In order to successfully complete DHG 121, the student is required to fulfill the following requirements:

1. Attend all lecture and lab sessions
2. Complete all reading assignments
3. Perform all laboratory tasks to a satisfactory level
4. Complete all assigned activities
5. Take all major tests with a grade average of 80% or better
6. Expose required films with a grade of 80% or better on bitewing and full mouth series. All films averaged together must be a grade of 80% or better.
7. Follow the clinic dress code of the Dental Health Professions Department.

COURSE IMPLEMENTATION

Methods of instruction used to present course material include:

Didactic:

- *Lecture
- *Discussion/Problem Solving
- *Role Playing/Decision making
- *Reading Assignments - to be done prior to each class
- *Audiovisuals, Power Point Presentations
- *Computer Assisted Instruction

Clinical:

- *Repetitive practice in a learning environment with manikin and patient practice
- *Self-assessment and problem solving
- *Faculty instruction and demonstration of clinical procedures

CLINICAL PORTION OF COURSE:

Each student will be given an opportunity to practice each graded component of this course. Your grade in lab will be comprised of the following:

I. Manikin Series:

1. Four BWX
 - a. 2 horizontal bitewing series [one digital, one traditional]

- b. 2 vertical bitewing series [one digital, one traditional]
- 2. Seven Vertical BWX
 - a. 2 vertical bitewings series [one digital, one traditional]
- 3. Four Full Mouth series
 - a. 1 XCP (traditional)
 - b. 1 Stabe (traditional)
 - c. 1 Digital
 - d. 1 bisecting the angle without BWX (traditional)

II. Patient Series:

- 1. Two adult FMS (one digital, one traditional)
- 2. Two bitewing series
- 3. One panoramic (required, not graded)

III. Other:

- 1. Two occlusal exposures on manikin. (required, not graded)
 - a. 1 maxillary
 - b. 1 mandibular

Remember:

You must achieve an 80% in BOTH the lecture and lab portions of this course in order to pass the course.

ATTENDANCE

If students are absent for more than 10% of the scheduled classes, they may be withdrawn. Three tardies constitute one absence.

Grading Scale

A =	100 - 94
B =	93 - 87
C =	86 – 80
D =	79 – 73
F =	72 and below

NOTE: A final grade of C (80%) or above is required to continue in the DHG program.

CO-REQUISITES: DHG 165, DHG 243

PREREQUISITES: DHG 154, DHG 125, DHG 115

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.