

DE 55A Course Outline as of Fall 1997**CATALOG INFORMATION**

Dept and Nbr: DE 55A Title: INTRO DENT RADIO 1

Full Title: Introduction to Dental Radiology 1

Last Reviewed: 11/14/2022

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	2.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	2.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 35.00

Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly: DNA 65A

Catalog Description:

Instruction in the basic principles of radiography, history, protection and safety guidelines. Physics and biological effects of radiation for the patient's and operator's protection and comfort. Types of films, exposures and manual processing techniques on mannequins. The relationship of dental anatomy and facial structures to the exposure and mounting of films.

Prerequisites/Corequisites:**Recommended Preparation:****Limits on Enrollment:****Schedule of Classes Information:**

Description: Instruction in the basic principles of radiography, history, protection & safety guidelines; the relationship of dental anatomy & facial structures to the exposure & mounting of films. (Grade Only)

Prerequisites/Corequisites:

Recommended:

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree: **Area** Effective: Inactive:

CSU GE: **Transfer Area** Effective: Inactive:

IGETC: **Transfer Area** Effective: Inactive:

CSU Transfer: Transferable Effective: Fall 1981 Inactive:

UC Transfer: Effective: Inactive:

CID:

Certificate/Major Applicable:

Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:

1. Explain the properties and principles of the emission of x-rays, the biological effects and sources.
2. Demonstrate knowledge of the history of x-rays in dentistry, and identify and apply the various terms applicable to dental radiology.
3. Identify the components and function of dental x-ray equipment.
4. Describe the hazards, maximum permissible dose, and demonstrate the application of the protective considerations when working with x-radiation equipment for the patient operator and additional personnel in the office.
5. Demonstrate knowledge of film composition, the speed and designated use for various types of dental film and its inventory.
6. Describe and apply the technique for placement, exposure, and processing of dental film to produce three full mouth radiographic surveys on a mannikin using the parallel and bisect angle techniques.
7. Demonstrate manual processing of radiographs, as well as maintain the darkroom, tanks and solutions during use to manufacturer's specifications.
8. Analyze the properties and effects of processing solutions.
9. Demonstrate mounting of radiographs according to accepted dental practice standards.
10. Evaluate the quality of films produced with instructor.

Topics and Scope:

- I. Application of X-Ray to Dentistry
- II. Terminology
 - A. Exposure Factors
 - B. Evaluation

- III. Operation of Equipment
 - A. Control Panel
 - B. Head Unit
 - C. Production of Radiation
- IV. Patient Positioning
- V. Films
 - A. Types
 - B. Composition
 - C. Processing
- VI. Bite Wing Examination
 - A. Technique
 - B. Evaluation
- VII. Periapical Examination
 - A. Technique
 - B. Evaluation
- VIII. Mounting Films

Assignment:

Reading assignments in texts and course syllabus.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Lab reports, Quizzes, Exams

Problem solving
30 - 75%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Performance exams

Skill Demonstrations
15 - 50%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion

Exams
10 - 20%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

Haring & Lind, Dental Radiology Principles and Techniques, 1st ed., W.B. Saunders, 1996