MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the College-wide Curriculum Committee.

DEPT: Dental Assistant          COURSE NO: 1100

NUMBER OF CREDITS: 3 (2 lecture. 1 lab)

COURSE TITLE: Oral Radiology I

CATALOG DESCRIPTION
Introduces the student to fundamental principles of dental radiography. An emphasis is placed on x-ray production, radiation safety, exposure techniques, and evaluation of radiographs. Application of principles and techniques will be performed on lab manikins. (Course credits: 2 lecture 1 lab)

AUDIENCE: Dental Assistant Students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area : by meeting the following competencies:
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PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:

LENGTH OF COURSE: 16 weeks

THIS COURSE IS USUALLY OFFERED:
Every year X Every other year □
Fall X Spring □ Summer □ Undetermined □

FOUR GOALS ARE EMPHASIZED IN COURSE AT MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE:

1. ACADEMIC CONTENT:
This course will prepare the student to apply knowledge of intraoral radiological principles and techniques on laboratory manikins while demonstrating radiation protection for both the patient(manikin) and the operator.
2. **THINKING SKILLS:**
   a. Analyze abstract concepts as they apply to dental radiology practice
   b. Problem solving skills associated with determining correction of image errors to reduce patient and operator exposure

3. **COMMUNICATIONS SKILLS:**
   a. Improve communication skills through interaction in classroom and lab
   b. Understand pertinent communication skills as they apply to interaction with and education of patients undergoing dental radiographic procedures

4. **HUMAN DIVERSITY:**
   a. Understand diverse constitutions of individual patients and how that may affect the efficient administration of dental x-ray procedures

**TOPICS TO BE COVERED**

1. Radiation Physics
2. Radiation Characteristics
3. Radiation Biology
4. Radiation Protection
5. X-ray Equipment
6. X-ray Image Characteristics
7. Radiographer Basics
8. Infection Control in Dental Radiology
9. Into to Radiographic Exams/Paralleling and Bisecting
10. Bitewing Exam
11. Exposure and Technique Errors
12. Film Mounting/Anatomic Order
13. Digital/3D Imaging
14. Normal Anatomical Structures

**LIST OF EXPECTED COURSE OUTCOMES:**

1. Understanding and application of basic dental radiology theory in the production of x-rays, x-ray characteristics, exposing, and evaluation of dental radiographs.
2. Perform problem solving in dental radiology preclinical practice.
3. Perform dental radiology in the safest manner to protect patients (manikins) and operators.

**LEARNING/TEACHING TECHNIQUES used in the course are:**

- Collaborative Learning
- Problem Solving
- Student Presentations
- Interactive Lectures
- Creative Projects
- Individual Coaching
- Lecture
- Films/Videos/Slides
- Demonstrations
- Lab
ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X  Reading
X  Individual Projects
X  Worksheets
X  Textbook Problems
X  Group Problems
X  Tests

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.
To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.
Students are expected to be able to perform two handed clinical and lab procedures which require sitting on a dental assisting stool for relatively long periods. Vision and hearing impairments may limit the ability to perform actual aspects of dental assisting.
This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.
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The information in this course outline is subject to revision

*Updated Spring 2019*