

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. RADT

COURSE NUMBER: 2290

NUMBER OF CREDITS: 1

Lecture: 1 Lab: 0 OJT: 0

Course Title:

Computed Tomography Basics

Catalog Description:

Computed Tomography Basics is designed to provide a comprehensive review of Computed Tomography and a step by step method of preparation for successful completion of the American Registry of Radiologic Technologists (ARRT) CT Registry Exam.

Prerequisites or Necessary Entry Skills/Knowledge:

Registered Radiologic Technologist through the American Registry of Radiologic Technologists

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- Goal 1: Communication: By meeting the following competencies:
- Goal 2: Critical Thinking: By meeting the following competencies:
- Goal 3: Natural Sciences: By meeting the following competencies:
- Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- Goal 7: Human Diversity: By meeting the following competencies:
- Goal 8: Global Perspective: By meeting the following competencies:
- Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered

Patient Care and Screening

Contrast Administration and Safety

Radiation Protection

Image Formation

Image Manipulation

Image Quality Factor

Procedure protocols for Head, Spine, Musculoskeletal, Neck, Chest, Abdomen and Pelvis

Student Learning Outcome

Gain an overall knowledge of computed tomography

Understand the patient handling, assessment and monitoring skills required for CT examinations.

Understand the safety to conduct and monitor the administration of contrast media required for CT imaging techniques.

Appreciate radiation safety and dose considerations needed to conduct CT examinations safely

Describe the main components of a CT scanner and their function in the imaging process.

Understand the operation of a CT scanner and the control of parameters that affect image quality and artifacts

Understand special patient accommodations

Basic education on trouble shooting computed tomography equipment

Interactive lecture

Group collaboration

Is this course part of a transfer pathway: Yes No

***If yes, please list the competencies below**

Revised Date: 1/24/2022