



MASTER COURSE OUTLINE

A. RADT 2240 Radiographic Topics and Skills I

B. COURSE DESCRIPTION:

This course is the first of two courses to review basic knowledge from previous courses to help the student prepare for the ARRT board examination. Topics include: image analysis, image production and evaluation; digital radiography; radiographic procedures; anatomy, pathology, and terminology; patient care. Also included in the course is resume building and interview skills. Mock board exams will be included throughout the course covering each of the categories included on the board exam. Prerequisites: RADT 2215, RADT 2239, RADT 2261. This course is part of the Radiography program which is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).
(1 Cr – 1 lect, 0 lab)

C. *Core Theme: Critical Thinking

D. RIVERLAND INSTITUTIONAL LEARNING OUTCOMES:

This course addresses the following Riverland Institutional Learning Outcome(s):

- ILO 1: critical thinking (*Core Theme Goal 2*)
- ILO 2: awareness of the larger global community (*Core Theme Goal 7 or Goal 8*)
- ILO 3: ethical, engaged citizenship (*Core Theme Goal 9 or Goal 10*)
- ILO 4: communication and collaboration (*Discipline Goal 1 and by any learning outcome(s) involving communication or collaboration*)

E. MAJOR CONTENT AREAS:

- Digital Imaging
- Image Processing
- Image Production
- Image Analysis
- Radiographic Procedures
- Medical Terminology
- Anatomy and Pathology
- Mock Board Exams
- Radiation Protection

F. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

<u>GOAL TYPE</u>	<u>OBJECTIVES</u> Students will be able to	<u>OUTCOMES</u> The student will successfully
<u>*Critical Thinking</u>	gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.	<ol style="list-style-type: none"> 1. apply an effective image critique method to a wide range of problems specific to practicum situations. 2. critique radiographs for the elements of a diagnostic digital image.
<u>CS</u>	define proper radiographic exposure.	<ol style="list-style-type: none"> 1. analyze exposure techniques for a given digital image.
<u>CS</u>	recognize artifacts.	<ol style="list-style-type: none"> 1. identify imaging artifacts and describe prevention solutions.
<u>CS</u>	apply knowledge of x-ray interactions with matter to produce a quality radiographic image.	<ol style="list-style-type: none"> 1. describe different x-ray interactions with matter and how they affect the digital image quality.
<u>CS</u>	review all human anatomy and competencies taught.	<ol style="list-style-type: none"> 1. simulating skill competencies in lab.

G. SPECIAL INFORMATION:

This course may require use of the Internet, the submission of electronically prepared documents and the use of a course management software program. Students who have a disability and need accommodations should contact Accessibility Services at the beginning of the semester. This information will be made available in alternative format, such as Braille, large print, or current media, upon request.

H. COURSE CODING INFORMATION:

Course Code X /Class Maximum 20; Letter Grade

Revision date: 03/30/22; 10/01/24

AASC Approval date: 10/27/20; 05/03/22; 11/19/24

*These five MnTC Goals have been identified as Riverland Community College Core Themes. Every course in the Riverland Community College curriculum shall meet outcomes from one of these themes.

**These five MnTC Goals have been identified as Riverland Community College Disciplines. Riverland's MnTC courses also shall meet outcomes from a Discipline Area.

NOTE: The Minnesota Transfer Curriculum "10 Goal Areas of Emphasis" are reflected in the five required discipline areas and five core themes noted in the Riverland Community College program of study guide and/or college catalog.

*Riverland Community College Core Themes	MnTC Goal Number
Critical Thinking (CT)	2
Human Diversity (HD)	7
Global Perspective (GP)	8
Ethical and Civic Responsibility (EC)	9
People and the Environment (PE)	10

**Riverland Community College Discipline Areas	MnTC Goal Number
Communication (CM)	1
Natural Sciences (NS)	3
Mathematics/Logical Reasoning (MA)	4
History and the Social & Behavioral Sciences (SS)	5
Humanities and Fine Arts (HU)	6

Riverland