



## MASTER COURSE OUTLINE

### A. RADT 2239 Radiographic Procedures III

### B. COURSE DESCRIPTION:

This final procedures course provides the student with the knowledge and skills necessary to perform radiographic examinations of the skull, facial bones, and paranasal sinuses. In addition, those systems needing oral or intravenous contrast agents, such as the digestive system and the urinary system, are covered, including not only the anatomy and positioning but also the examination protocols. Sectional anatomy of the head, thorax, and abdominopelvis are introduced, along with an introduction to the equipment, procedures, and technologies routinely used for specialized imaging procedures. Radiographs are evaluated for anatomy and positioning. There is a review of all anatomy and positioning previously studied, especially those areas identified by students as needing clarification. Prerequisites: RADT 2215, 2283. Co-requisites: RADT 2220, 2240. This course is part of the Radiography program which is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

**(3 Cr – 2 lect, 1 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:

- Skull planes and baselines
- Cranial anatomy and positioning
- Trauma skull positioning
- Facial bone anatomy and positioning
- Paranasal sinus anatomy and positioning
- Patient exam preparations
- Contrast media
- Upper GI anatomy and positioning

- Urinary system anatomy and positioning
- Patient radiation protection
- Cross-sectional anatomy of head, chest, and abdominopelvis
- Special Imaging Modalities
- Image critique

F. GOAL TYPE, OBJECTIVES, AND OUTCOMES:

| <u>GOAL TYPE</u>           | <u>OBJECTIVES</u><br>Students will be able to  | <u>OUTCOMES</u><br>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"> <li>1. critique radiographic images for positioning and technique requirements.</li> <li>2. identify the differences between the imaging modalities included in the radiologic sciences.</li> </ol> |
| <u>CS</u>                  | understand the principles of radiation protection.   | <ol style="list-style-type: none"> <li>1. utilize radiation protection.</li> <li>2. identify the appropriate method of shielding for a given imaging procedure.</li> </ol>   |
| <u>CS</u>                  | understand appropriate communication skills.   | <ol style="list-style-type: none"> <li>1. demonstrate appropriate communication skills.</li> </ol>   |
| <u>CS</u>                  | identify anatomy and positioning requirements for head, digestive, and urinary systems.  | <ol style="list-style-type: none"> <li>1. identify anatomy demonstrated after proper positioning.</li> </ol>   |
| <u>CS</u>                  | discuss sectional anatomy for special modalities.  | <ol style="list-style-type: none"> <li>1. identify sectional anatomy on radiographs.</li> </ol>  |
| <u>CS</u>                  | review all human anatomy and competencies taught.  | <ol style="list-style-type: none"> <li>1. identify skill competencies in the simulation lab.</li> </ol>  |
| <u>CS</u>                  | become familiar with the many facets of radiology.   | <ol style="list-style-type: none"> <li>1. demonstrate vast knowledge about the radiology field through professional journals.</li> </ol>   |

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: 12/15/10; 11/29/17; 05/01/18; 09/22/20; 03/30/22; 3/30/23

AASC Approval date: 05/08/18; 05/03/22; 05/02/23

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

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

\*These five MnTC Goals have been identified as Riverland Community College Disciplines.

\*\* These five MnTC Goals have been identified as Riverland Community College Core Themes.

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.