

Cañada College
Official Course Outline

1. **COURSE ID:** RADT 448 **TITLE:** Clinical Education IV
Units: 9.5 units **Hours/Semester:** 464.0-513.0 Field Experience hours; 464.0-513.0 Total Student Learning hours
Method of Grading: Letter Grade Only
Prerequisite: RADT 438

2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU

3. **COURSE DESCRIPTIONS:**
Catalog Description:
 Designed for the fourth semester radiologic technology student. Students continue to build the skills obtained in previous clinical education experiences.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**
 Upon successful completion of this course, a student will meet the following outcomes:
 1. Name all anatomy displayed on radiographic images.
 2. Perform radiographic examinations using a variety of equipment.
 3. Implement radiation safety standard of practice at all times.
 4. Provide patients with a safe and comfortable environment while performing radiographic examinations.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**
 Upon successful completion of this course, a student will be able to:
 1. Operate safely radiographic fluoroscopy, and image processing equipment.
 2. Complete ancillary competencies.
 3. Demonstrate general patient care and transportation.
 4. Consistently demonstrate radiation safety for patient and personnel.
 5. Practice radiographic positioning techniques to all general and contrast enhanced radiographic procedures.
 6. Identify appropriate technical factors for minimal anatomic variations.
 7. Identify required variations in technical factors when changing SID (source to image distance), or grids.
 8. Apply radiographic anatomy to imaging analysis.

9. Employ appropriate measures to ensure patient safety and comfort when performing radiographic examinations.
10. Demonstrate radiographic exposures utilizing technical factors approved by a supervising technologist.
11. Apply patient privacy laws in all aspects of radiographic procedures.
12. Recognize and respond appropriately to emergency situations should they arise.
13. Demonstrate the personal and professional qualities generally expected of certified Radiologic Technologists.

6. COURSE CONTENT:

Lab Content:

This course provides students with real-life experience in a clinical setting. Each clinical setting is different and students are exposed to a variety of radiologic exams depending on the clinic. The number of hours for the clinical experience, and thus units, correspond with the time needed for students to gain knowledge and skills in the clinical setting as they work towards being job ready.

1. Observe new radiographic examinations for correct positioning, image receptor placement, and central beam alignment.
2. Perform with assistance radiographic examinations observing correct positioning, image receptor placement, and central beam alignment.
3. Perform a minimum of 22 radiographic examinations demonstrating correct positioning, image receptor placement, and central beam alignment.
4. Describe and demonstrate radiation safety for patient and personnel.
5. Relate radiographic projections to demonstrate specific anatomy.
6. Identify required radiographic anatomy on images.
7. Demonstrate safe operation of radiographic equipment while performing various radiographic examinations.
8. Describe medical conditions that affect performance of various radiographic examinations.
9. Demonstrate comprehension of examination requisitions.
10. Assist and perform in operating room and portable examination procedures.
11. Perform increasingly difficult procedures.

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

1. Field Experience

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

1. Preparation of four written image analyses (4-5 pages in length) on pre-determined radiological examinations for oral case presentation. These exams must have been performed by the student, and include positioning, anatomy, technical factors, radiation dose and areas for improvement. Include relationship of textbook procedures to practical application in assigned clinical education setting.

Reading Assignments:

2. Review procedures performed each day (2 days per week) in assigned positioning textbook. Approximately 6 to 10 pages per week.
3. Review approximately 4 pages per week, department policy and procedure manuals.

Other Outside Assignments:

- o None.

To be Arranged Assignments:

- o Not applicable.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

0. Class Performance
 1. Lab Activities
 2. Oral Presentation
 3. Papers
 4. Simulation
 5. a) Successful completion of 5-8 ancillary competencies, 5 entry-level and 18 second year clinical competencies. b) Present 4 image analyses with a passing score. c) Participation in coaching session(s) on site with the clinical coordinator. d) Minimum 2 personal and professional growth assessments completed by the clinical instructor. e) 2 clinical observations completed by the clinical coordinator. f) Clinical evaluation completed by the clinical coordinator. g) Completion of all documents in clinical education manual. h) Complete and apply technical factors chart.

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

1. Frank, Eugene D., Bruce W. Long, and Barbara J. Smith. *MERRILL'S ATLAS OF RADIOGRAPHIC POSITIONS AND RADIOLOGIC PROCEDURES Vols. 1, 2 & 3*, 16th ed. St. Louis, Missouri: Mosby Elsevier, 2025
2. McQuillen Martensen, Kathleen. *RADIOGRAPHIC IMAGE ANALYSIS*, 6th ed. St. Louis, Missouri: Mosby Elsevier, 2024
3. Adler, Arlene M., and Richard R. Carlton. *INTRODUCTION TO RADIOLOGIC SCIENCES AND PATIENT CARE*, 8th ed. St. Louis, Missouri: Saunders Elsevier, 2023

Other:

1. Anatomy and physiology textbooks
2. Medical Terminology book
3. Required texts for RADT 400, 408, 410, 420, 415 and 430
4. Clinical Education Manual

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Course Originator: Lezlee Inman