

Virginia Western Community College

RAD 231

Advanced Clinical Procedures I

Prerequisites:

Successful completion of RAD 190

Course Description:

Reinforces technical skills in fundamental radiographic procedures. Introduces more intricate contrast media procedures. Focuses on technical proficiency, application of radiation protection, nursing skills, and exposure principles. Teaches advanced technical procedures and principles of imaging modalities, correlating previous radiographic theory, focusing on full responsibility for patients in technical areas, perfecting technical skills, and developing awareness of related areas utilizing ionizing radiation. Provides clinical experience in cooperating health agencies.

Semester Credits: 5**Lecture Hours: 0****Lab/Clinical/Internship Hours: 25****Required Materials****Textbook:**

Bontrager's Textbook of Radiographic Positioning & Related Anatomy, 9th ed. Kenneth L. Bontrager & John P. Lampignano. ISBN: 9780323399661

Radiographic Positioning & Related Anatomy: Workbook.

Supplementary Materials:

Several resource textbooks are located in the Radiography Lab
On campus laboratory facilities are available to radiography students during the day
One-on-one tutoring available upon request

Course Outcomes

At the completion of this course, the student should be able to:

- Meet all clinical objectives from RAD 121 and 221
- Increase technical proficiency emphasizing responsibility, awareness to the patients' needs; develop intellectual independence and maturity in performing radiographic examinations
- Experience weekend and evening clinical rotations, complete procedure competencies as appropriate

Topical Description

I: Performing Clinical procedures and Competencies

- Completing required number of radiographic procedures and competencies
- Category Competency Completion
- Film Evaluation and Critique

II: Basic Positioning and Patient Care

- Correct application of positioning concepts and patient care procedures

III: Radiation Protection Procedures

- Patient Protection Methods
- Operator Protection Methods

IV: Radiology Department Responsibilities

- Radiology Department and Radiography Program Regulations
- Departmental Staff/Fellow Student Interpersonal Relations

V: Weekend and Evening Clinical Experiences

- Specific Procedure Competencies
- Operational Procedures and Patient Care Situations

VI: Applied Material from Laboratory Lecture

- Correct Application of New Procedures, Techniques, and Equipment
- Completion of Clinical Worksheets and Lab

VII: Affective Domain

- Characteristics of the Affective Domain

Course Objectives

I: Performing Clinical Procedures and Competencies

- Completing the required number of radiographic procedures and competencies.

Student will be able to:

- Perform according to accepted protocol the remaining procedures on his/her procedure competency roster
- Properly retrieve CR images/locate film files, prepare for and satisfactorily review the required number of procedures and competencies
- Perform according to a minimum competency level, three (3) category competencies

II: Basic Positioning and Patient Care

- Correct Application of Positioning Concepts and Patient care Procedures.

Student will be able to:

- Perform with a minimum level of competency, all procedures previously completed on procedure competency roster.
- Correctly apply accepted patient care procedures.

III: Radiation Protection Procedures

- Patient Protection Methods

Student will be able to:

- Correctly apply all standard patient radiation protection techniques, to include gonad shielding proper collimation, and correct history taking for the possibility of pregnancy
- Correctly select a radiographic technique that affords the minimum exposure to the patient while maintaining optimum image quality.
- Operator Protection Methods

Student will be able to:

- Correctly use all accepted methods to reduce scatter radiation
- Correctly use lead aprons, barriers, and a protective standing position
- Assist during fluoroscopy in a manner that reduces personnel exposure to a minimum.
- Correctly choose a person to hold or restrain patients during radiographic procedures

IV: Departmental Responsibilities

- Department and Radiology Program Regulations

Student will be able to:

- Correctly interpret and follow specific hospital policy
- Correctly interpret and follow specific Radiography Program clinical policy:
 - Accepted professional attire
 - Professional demeanor
 - All items in the student clinical handbook
- Hospital Staff and Fellow Student Interpersonal Relations

Student will be able to:

- Interact professionally by phone and in person with all staff and physicians
- Interact with his or her peers in a manner that fosters mutual respect and cooperation in the educational environment

V: Weekend and Evening Clinical Experiences

- Specific Procedures

Student will be able to:

- Perform with appropriate supervision, general and specific procedures encountered during weekend and evening assignments. (Ex. Trauma, Surgery/C-Arm, Portables)
- Perform more advanced technique and equipment manipulations
- Evaluate patient conditions and select appropriate radiographic equipment/accessories

- Operational Procedures and Patient Care Situations

Student will be able to:

- Demonstrate the ability to interact appropriately with staff, physicians, and the general public.2. Perform departmental duties associated with weekend and evening operations.
- Display continued cooperation as a radiology team member.
- Exhibit critical thinking skills while performing patient care procedures.

VI: Applied Material from Laboratory and Lecture

- Correct Application of New Procedures, Techniques and Equipment

Student will be able to:

- Achieve a minimum level of competency in performing and understanding all new procedures and techniques introduced during the clinical semester
- Completion of Clinical Worksheets and Laboratories

Student will be able to:

- Complete with a minimum level of competency on all clinical worksheets and laboratory assignments

VII: Affective Domain

- Characteristics of the affective domain.

Student will be able to:

- Satisfactory apply and express the characteristics of the affective domain. Such as:
 - Apply concern for human welfare and the alleviation of suffering (patient care).
 - Begin and follow through with a plan and/or task (initiative).
 - Exchange ideas and information effectively to patients, peers, and staff (communication).
 - Work together toward a common goal (cooperation).
 - Be capable of being depended upon (dependability).
 - Put into deliberate order and operation the steps necessary to perform radiographic examinations (organization).
 - Be generally in a positive frame of mind (attitude).
 - Be deemed responsible for self and others (responsibility).
 - Demonstrate emotional stability and psychological health in day-to-day interactions with patients, staff, clinical instructors, and others, in routine and non-routine decision-making processes, and on the daily execution of didactic and clinical assignments (emotional health).

ADA Statement

https://www.virginiawestern.edu/wp-content/uploads/2024/12/Syllabus-Statement_ADA.pdf

Title IX Statement

https://www.virginiawestern.edu/wp-content/uploads/2024/12/Syllabus-Statement_Title-IX-2025.pdf

Note to Instructors

1. One-on-one tutorial sessions are available upon request.
2. Students may utilize the energized laboratory under supervision of a faculty member while on campus.
3. On-campus laboratory rules attached.
4. Students must adhere to the program's "Repeat Policy" when repeating any radiographic procedures.
5. Student must adhere to the "Direct" and "Indirect Supervision" policies as defined by the JRCERT.