COURSE OUTLINE

Course Number	Course Title	Credits
RAD102	**Introduction to Radiography and Patient Care**	**2**

Hours:	Co- or Pre-requisite	Implementation Semester & Year
1/2	**Formal acceptance into professional phase of Radiography program** **Co-requisites: RAD119, RAD127**	**Fall 2025**

Catalog description:
An introduction to radiography including accreditation requirements, professional organizations, professional ethics, legal responsibilities, and patient care.

General Education Category:
Not GenEd

Course coordinator:
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Course Instructor:
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Required texts & Other materials:
Title: Introduction to Radiologic Sciences and Patient Care. 8thEd.
Author: Arlene Adler
Publisher: Elsevier

Course Student Learning Outcomes (SLO):
Upon successful completion of this course the student will be able to:

1. Develop an understanding of the educational standards and intricacies associated with providing direct patient care in today's health care setting. [Supports ILG #1,3,5,8,9,11]
2. Describe methods to evaluate patient physical status, compare normal and abnormal values. Supports [ILG #2,3,11]
3. Explain special considerations necessary when performing procedures on patients with oxygen, tubes, catheters, and collection devices. [Supports ILG #3,11]
4. Classify pharmacologic agents utilized in the radiology department and describe the role of the radiographer in the administration of the pharmacologic agents. [Supports ILG #3]
5. Appreciate the comprehensiveness of radiologic technology and its contributions to health care from a technological, legal and ethical point of view. [Supports ILG #3,9]
6. Apply principles of patient care, ethics, and communication in accordance with accepted professional standards. [Supports ILG #1,5,8,9]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.
Institutional Learning Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.
Institutional Learning Goal 3. Science. Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.
Institutional Learning Goal 5. Social Science. Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
Institutional Learning Goal 8. Diversity and Global Perspective: Students will understand the importance of a global perspective and culturally diverse peoples
Institutional Learning Goal 9. Ethical Reasoning and Action. Students will understand ethical frameworks, issues, and situations.
Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Units of study in detail – Unit Student Learning Outcomes:

Unit I **Hospitals and the Health Care Team** [Supports Course SLO #1]

Learning Objectives

The student will be able to:

- Identify the responsibilities of the health care facility and members of the health care team.
- List the general responsibilities of the radiographer.
- Identify patient services available in the radiography department.
- Identify various settings involved in the delivery of health care.
- Discuss the reimbursement/payment options for health care services.
- Discuss the relationship, responsibilities, and interdependencies between administrative, institutional, and radiology services and personnel.

Unit II **Education, Professional Development, and Clinical Competency** [Supports Course SLO #1]

Learning Objectives

The student will be able to:

- Discuss the general employment outlook and career advancement opportunities for the graduate radiographer.
- Define program and institutional accreditation, credentialing, certification, registration, licensure, and regulations.
- Identify the benefits of continuing education as related to improved patient care and professional enhancement.
- Explain the clinical competency and remediation process.
- Describe the practice standards for the radiographer as defined by the ASRT and state licensure.

Unit III **Patient History and Assessment** [Supports Course SLOs #2,3]

Learning Objectives

The student will be able to:

- Describe the rationale and methodology for obtaining an accurate and thorough patient history.
- Differentiate objective from subjective data.
- Explain the proper electronic and manual techniques for documenting patient care.
- Identify elements of a thorough pain assessment.
- Discuss safety and privacy issues as they relate to patient identification and documentation.

Unit IV **Ethical Principles and Legal Responsibilities** [Supports Course SLO #5,6]

Learning Objectives

The student will be able to:

- Explain the concepts of honesty, integrity, accountability, competence, and compassion as ethical imperatives in health care.
- Explore how religious, societal, and institutional values impact individuals and patient care.
- Discuss the radiographer's responsibility to demonstrate ethical behavior.
- Discuss how to identify and resolve ethical dilemmas in order to deliver safe, timely, and appropriate patient care.
- Identify the legal consequences of unethical behavior.
- Identify legal and professional standards in health care.
- Define legal terms used in medical litigation.
- Discuss the radiographer's role as they pertain to the patients' Bill of Rights, informed consent, documentation, and privacy.
- Explain the legal considerations and procedures for reporting an accident or incident.

Unit V **Patient Care: Infection Control, Medical Emergencies, Pharmacology, Contrast Administration** [Supports Course SLO #4]

Learning Objectives

The student will be able to:

- Define terms related to infection control.
- Describe the proper method for hand hygiene.
- Discuss the types, characteristics, and spread of infectious pathogens.
- Demonstrate infection control practices, procedures, and equipment.
- Describe the radiographer's role during a medical emergency.
- Identify and respond to common medical emergencies in the radiology department.
- Describe necessary precautions and assessment skills when caring for a patient with a traumatic injury.
- Discuss the radiographer's role in administering medications and monitoring patients during invasive procedures.
- Describe pharmacological properties of drugs commonly used in the radiology department.

- Identify drugs according to classification, including trade vs generics.
- Identify and describe common reactions from medications used in radiography.
- List the 'rights of medication administration.
- Explain the rationale and procedure for informed consent during an invasive procedure.
- Describe the radiographer's role in caring for patients undergoing invasive procedures.
- Discuss the importance of patient education and communication when caring for a patient undergoing invasive procedures.
- Identify different categories of contrast agents and their application.

Unit VI **Mobile and Surgical Radiography** [Supports Course SLO #1,6]

Learning Objectives

The student will be able to:

- Explain the appropriate radiation protection required when performing mobile/surgical radiography.
- Describe the safety and legal aspects of performing a mobile radiographic examination.
- List special considerations when performing mobile procedures on special populations.
- Identify appropriate professional behavior when performing radiographic procedures on a patient in the surgical suite.
- Explain the appropriate radiation protection required when performing mobile/surgical radiography.

Unit I – VI **Laboratory** [Supports Course SLO #1-6]

Learning Objectives

The student will be able to:

- Analyze the elements of professionalism in health care, including attitudes, communication techniques, and psychological aspects of patient care
- Discuss how cultural, social, ethnic, and demographic considerations impact communication and health status.
- Demonstrate safe patient immobilization techniques, and patient transfer.
- Demonstrate the proper methods to obtain temperature, pulse, blood pressure, and respiratory vital signs; evaluate normal and abnormal values.
- Evaluate methods of oxygen administration and EKG results.
- Differentiate between aseptic and non-aseptic technique.
- Identify the use of urine collection devices and describe the method for assisting patients with toileting.
- Demonstrate safe venipuncture technique and management of tubes, catheters, lines, and other interventional medical devices.
- Describe the procedure for performing contrast studies via the stomach, rectum, and colostomy.

Evaluation of student learning:
A grade of "C+" (77%) or higher must be achieved in the course to progress to RAD120 and RAD128. The following grading policy will be utilized:

Ethical Dilemma Presentation	20% (Honor Lock Proctoring)
Midterm:	30% (Honor Lock Proctoring)
Final Exam:	35% (Honor Lock Proctoring)
Laboratory:	10%
RT Bootcamp	5%