Virginia Western Community College
RAD 125
Patient Care Procedures

Prerequisites
Admission to the Radiography Program

Course Description
Presents the care and handling of the sick and injured patient in the Radiology Department. Introduces the fundamentals of nursing procedures, equipment, and supplies specific to radiology.

Semester Credits: 3 **Lecture Hours: 3** **Lab/Clinical/Internship Hours: 0**

Required Materials

Textbook:
Introduction to Radiologic Sciences and Patient Care. Adler & Carlton, 7th ed. ISBN: 9780323566711

Supplementary Materials:
Several resource textbooks are located in the Radiography Lab
Laboratory facilities are available to radiography students during the day

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

- Understand the history and current applications of patient care, medical records, and health information to radiography
- Perform basic vital signs, oxygen administration, infection control, immobilization and transfer techniques.
- Apply infection control, aseptic, and non-aseptic techniques using nursing procedures and supplies as applied to radiography.
- Recognize common definitions and nomenclature associated with pharmacology and contrast media
- Explain the ethical concepts of the radiologic technology profession, including the various types of law

Topical Description

Patient Interactions, History Taking, Medical Records and Health Information, Safe Patient Movement and Handling Techniques

- Identify qualities needed to be a caring Radiologic Technologist
- Specify needs that cause people to enter Radiologic Technology as a profession
- Discuss general needs that patients may have according to Maslow's hierarchy of needs
- Relate differences between the needs of inpatients and those of the outpatients
- Explain why patient interaction is important to patients, as well as their family and friends
- Analyze effective methods of communicating with patients of various ages
- Explain appropriate interaction techniques for various types of patients
- Discuss consideration of the physical changes of aging with regard to radiologic procedures
- Discuss appropriate methods of responding to terminally ill patients
- List four factors that account for the reduction of injuries that occur during handling and moving patients and explain the contribution of each factor
- Define concepts of body mechanics used in moving and handling a patient
- Describe the cause, signs, symptoms, and treatment of orthostatic hypotension
- Describe the basic principles of proper lifting and transfer techniques
- Explain or demonstrate four types of wheelchair-to-bed transfers
- Explain or demonstrate a standard cart transfer procedure
- Identify five standard patient positions
- List three types of commonly attached medical equipment and explain how this may influence how to move or position a patient
- Identify major medical record department functions
- List key components of a patient medical record in acute care
- List key components of a patient medical record in alternate health care settings including ambulatory care and long-term care
- Describe how medical record documentation affects hospital and physician reimbursement
- Describe the prospective payment system including diagnosis-related groups and coding and classification systems
- Identify components of quality assessment and the relationship of quality assessment to all hospital departments
- Differentiate between confidential and non-confidential information
- Discuss the procedure for correcting or amending documentation errors in a patient medical record
- Describe the role of radiologic technologists in taking patient clinical histories
- Describe the desirable qualities of a good patient interviewer
- Differentiate objective form subjective data
- Explain the value of each of the six categories of questions useful in obtaining patient histories
- Describe the importance of clarifying the chief complaint

- Detail the important elements of each of the sacred seven elements of the clinical history

Immobilization Techniques, Vital Signs and Oxygen, Medical Emergencies

- Demonstrate a range of immobilization techniques
- Explain the importance of quality communication with the patient
- Describe reduction of patient radiation exposure by using proper immobilization methods
- Apply immobilization techniques in routine situations
- Use immobilization devices effectively
- Describe trauma immobilization techniques as they pertain to specific anatomic involvement
- Explain the importance of establishing rapport with pediatric patients
- Use various methods of pediatric immobilization
- Describe appropriate application of immobilization techniques pertinent to geriatric patients
- Discuss the significance for obtaining each of the four vital signs: temp., resp., pulse, and BP
- Identify the normal range of each of the four vital signs
- Appreciate the implication of abnormal vital signs
- Describe how vital signs are obtained
- Explain the indications for administering oxygen therapy
- Identify high-flow and low-flow oxygen delivery appliances
- Explain why caution must be used in performing radiographic procedures on ventilator patients
- Define terms related to medical emergencies
- List the objectives of first aid.
- List general priorities in working with patients in acute situations.
- Explain the purpose of an emergency cart and its contents.
- Explain the four levels of consciousness.
- Describe the signs and symptoms of various medical emergencies.
- Discuss methods of avoiding the factors that contribute to shock.
- Discuss factors that contribute to the development of hypoglycemia
- Describe the appropriate procedure for handling patients with various medical emergencies.
- Describe the correct procedure for administration of cardiopulmonary resuscitation.
- Demonstrate appropriate principles of CPR.

Infection Control, Aseptic Techniques, Non-aseptic Techniques

- Define the terminology related to infection control
- Identify the four basic infectious agents along with their unique characteristics
- Explain the steps involved in the establishment of an infectious disease
- Discuss the four factors involved in the spread of disease and the chain of infection.
- Describe the various sources of nosocomial infection
- Explain the constituents of microbial control within the host.
- Contrast Medical and surgical asepsis

- List chemical and physical methods of asepsis
- Demonstrate the medically aseptic hand washing technique
- Describe the basic premises of universal precautions
- Relate types of isolation with appropriate clinical situations
- Demonstrate strict isolation technique
- Describe the use of a sterile drape to establish a sterile field
- List the steps in a surgical scrub
- Describe procedures for gowning and gloving
- List basic principles of sterile technique
- Describe the procedure for changing a dressing
- Provide care to a patient with a tracheostomy
- Provide care to a patient with a chest tube
- Describe the care of a patient with a urinary catheter
- Contrast intravenous and intra-arterial lines
- Assist the physician in pacemaker insertion
- Describe the insertion, care, and removal of nasogastric tubes
- Assist a patient with the use of a make urinal
- Assist a patient with a bedpan
- Describe the common types of enemas
- Describe the procedure for a cleansing enema
- State the need for patient teaching regarding the barium enema-preparation, procedural, and post procedural
- Differentiate between the single-contrast and double-contrast barium enemas
- Describe the procedure for a colostomy barium enema
- State the needs for a colostomy patient undergoing a barium enema

<u>Pharmacology, Principles of Drug Administration, and Contrast Media</u>

- Recognize common definitions and nomenclature associated with pharmacology
- Describe the actions, indications, and precautions related to various drugs
- List the five rights of drug administration
- List the methods of drug administration
- Prepare intravenous drugs for injection
- Perform venipuncture using appropriate universal precautions
- Describe documentation procedures related to drug administration
- Define abbreviations commonly used in drug administration
- Discuss the factors of subject contrast
- Compare negative and positive contrast agents
- Match general types of contrast media to specific procedures performed
- State serious complications of the administration of barium sulfate

- Match specific procedures to particular patient instructions
- Locate various parts of iodinated contrast media molecules and state their functions if applicable
- Match the term osmosis to various effects of iodinated ionic contrast media
- Discuss the advantages of nonionic iodinated contrast media
- Differentiate between the major adverse effects of various contrast agents
- Match clinical symptoms of adverse reactions to iodinated contrast media to the level of treatment required
- Relate the patient history to the possibility of adverse reactions
- List the five rights of drug administration
- Identify the common metric systems of measurement
- List the methods of drug administration
- Identify the appropriate areas for drug administration
- Prepare intravenous drugs for injection
- Perform venipuncture using appropriate universal precautions
- Describe documentation procedures related to drug administration
- Identify common standard abbreviations

Professional Ethics and Medical Law

- Explain the ethic of the radiologic technology profession
- Differentiate between the systems of ethics, law, and morals
- Explain the four-step problem solving process of ethical analysis
- Explain three sources of moral judgment that underlie ethical decision-making
- Identify moral dilemmas encountered in patient relationships and other health professionals
- Recognize values associated with ethical decision-making in the practice of radiologic technology
- Apply critical analysis to ethical decision-making
- Differentiate between the various types of law
- Outline how the standard of care is established for radiologic technologists
- Discuss the concept of tortuous conduct and causes of action that may arise from the behavior of a health care practitioner
- Argue the importance of privacy of records and the relation between privacy of records and patient confidentiality issues
- Explain negligence and the four elements necessary to meet the burden of proof in a medical negligence claim
- Explain the legal theory of Res Ipas Loquitur and how it may be used by an attorney in a claim of medical negligence
- Illustrate how a hospital may be liable under the doctrine of respondeat superior
- Justify the need for informed consent
- Outline the information a patient must have before an informed consent may be give

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.
3. Canvas power point presentation available to students.
4. Performance assessment for oxygen usage and suction, infection control procedures, and vital signs.