Radiographic Science Program RS 3325, Patient Care in Radiography Course Syllabus

**Course Credit:** 3 Credits

Time and Location: Monday, 9:00 a.m. - 11:30 a.m, Building #66 Rm 120

**Instructor:** Wendy Mickelsen, MHE, RT(R)(M)(BD) **Phone/e-mail:** (208) 282-2112 wendymickelsen@isu.edu

**Overview:** This course is designed to provide students with the knowledge and information necessary to perform reliable judgment when working with patients in the clinical setting.

In this course students will be instructed in the utilization of imaging equipment, accessories, optimal exposure factors, and proper patient positioning to minimize radiation exposure to the patients, themselves, and others. These practices assure radiation exposures are kept as low as reasonably achievable (ALARA).

Reference Texts: Patient Care in Radiography, Ehrlich, R., 10th ed., 2020, Mosby, St. Louis.

Method of Presentation: Lecture, PowerPoint, Radiographic Images, Handouts

Course Learning Objectives/Goals: This course will study theory and clinical applications relevant to providing quality patient care in a radiography setting. Topic areas will include: professional and ethical issues for radiographers, communication, documentation, patient's rights, mobility and transferring patients, patient care and safety, infection control, CPR certification, vital signs and oxygen administration, sterile technique, trauma and emergency considerations, venipuncture and basic IV set-up, contrast media and drug administration, care of patients with special needs/considerations, and care of patients during both routine and complex imaging procedures. Skills acquired and passed off during this course meet the ARRT general patient care requirements for the radiography registry.



RADIOGRAPHY DIDACTIC AND CLINICAL COMPETENCY REQUIREMENTS ARRT® BOARD APPROVED: JANUARY 2016 EFFECTIVE: JANUARY 2017

#### 4.2.1 General Patient Care

Candidates must be CPR certified and demonstrate competence in the remaining nine patient care activities listed below. The activities should be performed on patients whenever possible, but simulation is acceptable.

General Patient Care Procedures	Date Completed	Competence Verified By	
CPR Certified			
Vital Signs – Blood Pressure			
Vital Signs – Temperature			
Vital Signs – Pulse			
Vital Signs – Respiration			
Vital Signs – Pulse Oximetry			
Sterile and Medical Aseptic Technique			
Venipuncture			
Transfer of Patient			
Care of Patient Medical Equipment (e.g., Oxygen Tank, IV Tubing)			

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The Secretary's Commission on Achieving Necessary Skills (SCANS): This commission was appointed by the Secretary of Labor to determine the skills people need to succeed in the work place. The Commission's fundamental purpose is to encourage a high-performance economy characterized by high-skill, high-wage employment. The Commission's research found that effective job performance is what business calls *workplace know-how*. This know-how has two elements: competencies and a foundation. The SCANS report identifies five competencies and a three-part foundation of skills and personal qualities that lie at the heart of job performance. While the Commission's work ended with the report, its recommendations must be implemented; as the report stated, "...defining competencies and a foundation is not enough. Schools must teach them. Students must learn them."

http://www.academicinnovations.com/report.html

Description of SCANS competencies are as follows:

A Three Part Foundation			
1. Basic Skills	reads, writes, performs arithmetic and mathematical operations, listens		
	and speaks		
2. Thinking Skills	thinks creatively, makes decisions, solves problems, visualizes, knows		
	how to learn, and reasons		
3. Personal Qualities	displays responsibility, self-esteem, sociability, self-management, and		
	integrity and honesty		
The Five Competencies			
4. Resources	identifies, organizes, plans and allocates resources		
5. Interpersonal	works with others		
6. Information	acquires and uses information		
7. Systems	understands complex interrelationships		
8.Technology	works with a variety of technologies		

Each of these foundations and competencies are listed after the objective that meet the competency or skill set described above.

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# **Course Learning Outcomes:**

Upon completion of this material the student will be able to:	SCANS
BLS CPR Certification (adult, child, infant)	1,2,4,5,6,7,8
Identify and demonstrate effective non-verbal and verbal communication	1,2,6
techniques.	
Describe the Code of Ethics that guides radiographers.	1,2,6
Discuss the Patient's Bill of Rights.	1,2,6
Participate in "Back School" and demonstrate effective patient transfer techniques	1,2,4,5,6,7,8
including: bed, imaging table, wheelchair, or stretcher transfers.	
Describe how to break the chain of infection.	1,2,6
Demonstrate effective hand washing.	1,2,6
Demonstrate the use of multiple PPE's (gloves, gown, mask)	1,2,6
Describe methods used to evaluate a patient's physical status.	1,2,6
Demonstrate how to perform a complete patient assessment including:	1,2,4,5,6,7,8
temperature, pulse, respiration rate, blood pressure.	
Describe normal ranges for the following: temperature, pulse, respiration rate,	1,2,6
blood pressure.	
Demonstrate oxygen and suction system set up and maintenance and demonstrate	1,2,4,6,7,8
proper use.	
Describe the role of the radiographer in performing documentation including:	1,2,6
charting and incident reporting.	
Describe the process required to hang an IV bag.	1,2,6
Demonstrate reading the label and drawing up a medication.	1,2,6
Identify and describe the routes of drug administration.	1,2,6
Identify needles by correct gauge size.	1,2,6
Identify catheters and feeding tubes by correct French size.	
Describe the patient's preparation for barium or iodinated contrast media studies.	
Describe the purpose of a contrast questionnaire.	
Discuss ionic and non-ionic contrast media.	
Describe adverse contrast media reactions including: mild, moderate, severe	1,2,6
Describe the steps required to perform venipuncture.	1,2,6
Demonstrate effective venipuncture by obtaining a flashback.	1,2,4,5,6,7,8
Describe the steps required to don a sterile gown and gloves.	1,2,6
Demonstrate donning a sterile gown and gloves.	1,2,4,6,7,8
Demonstrate preparing a sterile tray.	1,2,4,6,7,8
Describe the radiographer's role in imaging in the surgery suite.	1,2,6
Discuss the role of the radiographer during emergency or trauma situations.	1,2,6
Discuss the role of the radiographer when performing portable or bedside	1,2,6
radiography.	
Describe common commercial immobilization devices (Pigg-O-Stat, Tam-em	1,2,6
board, papoose board) and evaluate their function.	

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Describe and demonstrate the use of ancillary immobilization devices (tape,		
sponges, sandbags, stockinette or ace bandage, mummy wraps.		
Identify effective methods of reducing patient and radiographer exposure during		
imaging procedures (collimation, low dosage techniques, limit repeat exposures).		

**Code of Ethics:** RS 3325 adheres to the ISU Code of Conduct. In particular, academic dishonesty, however small, creates a breach in academic integrity. A student's participation in this course comes with the expectation that his or her work will be completed in full observance of the ISU Code of Student Conduct.

**Academic Dishonesty Policy:** Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class and may result in suspension or dismissal from this course and from the program. Cases will also be referred to the Dean of Students for possible dismissal from the university.

Cheating includes, but is not limited to, (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to, the use of, by paraphrase or direct quotation without correct recognition, the published or unpublished works of another person. The use of materials generated by agencies engaged in "selling" term papers is also plagiarism.

Many components RS 3325 are designed to be highly interactive. Students are encouraged to take full advantage of the many resources available including Internet sites, handouts and workbooks, other textbooks and journals, faculty, and peers. This interactive collegial learning environment is conducive for life-long learning.

### **Classroom Procedure:**

1. **Attendance:** You are expected to attend class regularly. It is your responsibility to maintain a level of attendance which will allow you to derive maximum benefit from the instruction. Excessive absences (>10%) will result in a lower course grade if you are borderline between two grades. Conversely, if you have good attendance and are border line between two grades, I will award the higher grade.

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## 2. Grading Procedure:

Assessment Method	Percentage
	Value
CPR Certification/Hands on Skills Check Off	20%
Chapter Assignments/Clinical Assignments/Safety Essentials & Diverse Populations Online Modules	70%
Final Comprehensive Exam	10%

This grading Scale will be used:

+/- System			
93-100%	A	73-76%	С
90-92%	A-	70-72%	C-
87-89%	B+	67-69%	D+
83-86%	В	63-66%	D
80-82%	B-	60-62%	D-
77-79%	C+	59% Below	F

Note: A grade of C or better is required in this course in order to receive a degree from the Department of Radiographic Science.

The minimum requirements to earn a passing grade are successful completion of all tests (70% minimum).

3. **Make-up:** If you are unable to sit for an examination, you may request a make-up exam. You must inform me that you will not be present for the examination **prior** to the scheduled time. An additional 10% drop in the test grade will result if prior notification is not given and is not accepted by me <u>prior to taking the test</u>. The highest grade you can receive for a make-up exam is 89% unless you provide me with an acceptable excuse. An acceptable excuse is defined **as very** sick; a death in the immediate family; some unforeseen circumstance that would prohibit you from taking the exam.

In addition, it is a requirement to take all tests offered during the semester. An incomplete will be issued for the class if a test is not taken.

**Cell phone policy:** Cell phones should not be used in class. They should be place in silent mode or turned off. Additionally receiving and retrieving text messages should not occur during class or in labs. If you need to communicate to someone outside of the class in an emergency situation please inform the instructor so accommodations to this policy may be made.

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**Disability Services:** Students with disabilities who wish to have accommodations provided by the University must self-identify with Disability Services (208) 236-3599 in order to have accommodations provided. Information and applications are available in the Center and may be picked up in person or requested by telephone. The URL is https://www.isu.edu/disabilityservices/