Reese Campus

Course Syllabus

COURSE:	RADR 1309.200 Introduction to Radiography and Patient Care
SEMESTER:	Fall 2014
CLASS TIMES:	M/W 9:00-10:15AM
INSTRUCTOR:	Stacy Randel, MSRS.
OFFICE:	Rm 512B
OFFICE HOURS:	M-R 1:00-3:00; By appointment
OFFICE PHONE:	(806)716-4928
E-MAIL:	srandel@southplainscollege.edu
Facebook:	The radiologic technology program has a Facebook page at www.facebook.com/spcradiologictechnologyprogram. In addition to the South Plains college websites, this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains college announcements and will help with program recruitment. "Liking" the radiologic technology program's Facebook page is not mandatory, nor are personal Facebook accounts in order to access this page.
BlackBoard:	Blackboard is an e-education platform designed to enable educational innovations everywhere by connecting people and technology. This education tool will be used in this course throughout the semester.

"South Plains College improves each student's life."

GENERAL COURSE INFORMATION

COURSE DESCRIPTION

This course provides an overview of the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for health care professionals, and an orientation to the Program and to the health care system. Patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills and basic pharmacology are also included.

STUDENT LEARNING OUTCOMES

Students will:

- Identify and explain the role of Radiology in the Health Care delivery system
- Define basic medical terms as they relate to radiography
- Define the ethical and legal standards for the profession of Radiologic Technology
- Describe the basic radiation protection responsibilities for the student, the patient, and other personnel
- Assess the patient's condition to include infectious processes; interact appropriately with the patient, physicians, and other personnel, while adhering to proper safety, confidentiality and other patient care procedures in order to complete appropriate radiographic procedures
- Identify appropriate actions to be taken in the imaging department when faced with emergency situations

COURSE OBJECTIVES -

TOPIC: RADIOLOGIC SCIENCES & THE HEALTH CARE DELIVERY SYSTEM

OBJECTIVES:

The student will be able to:

1. Identify the contributions of the pioneers in radiology. (F1)
2. Define terms related to radiologic technology. (F1;C5,6,7)
3. Identify the various modalities within the Radiologic Sciences and describe each.(F2;C15)

4. Identify the various disciplines incorporated into the health care delivery system and explain their interactions with the Radiologic Sciences. (F2;C9,11,15)

ASSIGNMENT: Adler & Carlton, Ch. 1

TOPIC: RADIOLOGIC SCIENCE ACCREDITATION, CREDENTIALING AND PROFESSIONAL ORGANIZATIONS

OBJECTIVES:

The student will be able to:

1. Define the following terms:(C7)
   a. Accreditation
   b. Credentialing
   c. Certification
   d. Licensure
   e. Registration
2. Identify and explain the function of the various credentialing, certifying, and accrediting agencies associated with health care delivery systems seen at the local, state and national levels. (C5,15)
3. Identify the professional organizations associated with the profession of Radiologic Technology: (C15)
4. Explain the purpose, function and activities of professional organizations. (C15)
5. Identify the benefits of continuing education as related to improve patient care and professional enhancement. (C9)

ASSIGNMENT: Adler & Carlton, Ch. 2, Appendix B & C

TOPIC: HOSPITAL AND RADIOLOGY DEPARTMENT ORGANIZATION

OBJECTIVES:

The student will be able to:

1. Identify the role of the individuals within the Radiology Department chain-of-command and the student's role within the department. (C9,15)
2. Identify and describe the work flow of a typical radiology department, including receiving and processing requests; prioritizing examination by schedule, need or patient condition and preparation; transporting the patient; positioning the patient and processing images; interpretation of images by radiologist, filing images and reports, and dismissal of the patient. (F8;C9,15,16)
3. Provide an overview of the administration of a hospital radiology department and the structure of hospital organization.(C9,11,12;F13,15)
4. Describe the hospital environment and radiology's purpose within.
5. Describe regulating agencies that affect radiology.

ASSIGNMENT: Adler & Carlton, Ch. 6

TOPIC: ETHICS AND PROFESSIONALISM

OBJECTIVES:

The student will be able to:

1. Define the terms associated with standards of behavior as they apply to ethical, professional and moral standards.(C5)
2. Explain the role of ethical behavior in health care delivery. (C5)
3. Discuss the ARRT Standards of Ethics. (F13)
4. Discuss the standards of a patient bill of rights. (F1)
5. Interact with patients, peers and professionals in a civil and considerate manner. (F15;C9,11,14)
6. Project a professional image in their attire, attitude and conduct. (F13,14)
7. Effectively communicate with patients and staff in a professional manner. (F6;C7,9,11)
8. Given simulated situations, solve problems in a professionally acceptable manner. (F9;C11)

ASSIGNMENT: ARRT Standards Of Ethics and Patient Bill Of Rights; Adler & Carlton, Ch.22, Appendix A, D, E and handout

TOPIC: HEALTH RECORDS AND CONFIDENTIALITY

OBJECTIVES:

The student will be able to:

1. Describe the necessity for and process of recording accurate patient information. (F2;C5,6,15)
2. Describe ownership of and need for availability of patient records.(C2,7)
3. Given simulated situations, respond to various types of request for information. (F1;C7)
4. Discuss the importance of observing, reporting and documenting factual patient/examination information for the purpose of correct diagnosis and billing requirements. (F2;C6,7)
5. Maintain the professional confidentiality of patients, staff and the hospital as established by HIPAA. (F17;C9,11)

ASSIGNMENT: Adler & Carlton, Ch. 23

TOPIC: LEGAL RESPONSIBILITIES

OBJECTIVES:

The student will be able to:

1. Define the legal terms pertinent to issues of liability, negligence, standard of care, invasion of privacy, and breach of confidentiality. (C5,7)
2. Explain the legal implications of professional liability, malpractice, profession negligence/carelessness and other legal doctrines applicable to professional practice.
3. Discuss the elements necessary for a valid malpractice claim.(F6,13;C11)
4. Describe the importance of accurate, complete, correct methods of documentation as a legal/ethical imperative. (C5,7)
5. Discuss the ARRT Practice Standards for the radiographer and identify the elements that comprise it. (F13)
6. Discuss the limits of responsibility for the radiographer as defined by the Practice Standards. (F16)

ASSIGNMENT: Adler & Carlton, Ch. 24

TOPIC: PATIENT CONSENT

OBJECTIVES:

The student will be able to:

1. Define the term informed consent.(C7)
2. Identify the elements necessary for informed consent.(C7, F8,9)
3. Discuss standards for disclosure relative to informed consent. (C7,11)
4. Describe how consent forms are utilized relative to specific radiographic procedures.(F2,6;C7)
5. Discuss how consent forms are used in legal action. (F2,6;C7)

ASSIGNMENT: Adler & Carlton, Ch. 24

TOPIC: INFECTION CONTROL

OBJECTIVES:

The student will be able to:

1. Identify and describe the four types of microorganisms that may cause infection. (F1,6,C7)
2. Identify and explain the factors that contribute to the process of infection. (F1,6,C7)
3. Identify and discuss the modes of transmission of HIV, hepatitis, and tuberculosis and the methods of preventing their spread in health care settings. (F1,6,C7)
4. Identify and explain methods that the R.T. can use routinely to control infection in the daily practice of radiologic technology. (C18,19)
5. Identify and define the isolation precautions as outlined by the CDC and describe the precautions required in each tier. (C15,18,19)
6. Identify and explain the four basic principles of dealing with patients who have a communicable disease. (C18,19)
7. Identify and explain the correct method of entering and leaving an isolation room by means of strict isolation technique. (C18,19)

8. Define terms pertaining to medical asepsis and demonstrate the correct method of hand-washing to prevent transmission of infection. (F1,C7)

ASSIGNMENT: Adler & Carlton, Ch. 16

TOPIC: MEDICAL & SURGICAL ASEPSIS

OBJECTIVES:

The student will be able to:

1. Differentiate between medical asepsis and surgical asepsis. (C15)
2. Identify the most common means of transmitting microorganisms in the special procedures area or operating room. (C15)
3. Differentiate between disinfection and sterilization. (C15)
4. Identify the rules of surgical asepsis. (C15)
5. Explain the correct method of: (C19)
    a. Opening a sterile pack, in order to avoid contamination.
    b. Placing a sterile object on a sterile field.
    c. Putting on a sterile gown and gloves.
    d. Skin preparation for a sterile procedure.
    e. Removing and reapplying a dressing.

ASSIGNMENT: Adler & Carlton, Ch. 17 & 18

TOPIC: BASIC PATIENT CARE

OBJECTIVES:

The student will be able to:

1. Demonstrate, in lab, the correct manner of moving, transferring and positioning patients to prevent injury to himself/herself and to the patient. (C11,14,15,18,19)
2. Identify the safety measures that must be taken when transferring a patient from a hospital ward to the x-ray department and returning him to the ward.(C11,14,15,18,19)
3. Explain the correct method of assisting the disabled patient with undressing/dressing for a diagnostic radiographic procedure. (C11,14,15,18,19)
4. Give clear instructions to ambulatory patients about the appropriate method of undressing/dressing for a diagnostic radiographic procedure. (F6;C7,14)
5. Identify the situations in the x-ray department that might result in damage to the patient's skin and explain how to prevent them. (F6,12,13;C9,11,14)
6. Demonstrate, in lab, the correct way of moving a patient wearing a cast. (C11,14,15,18,19)
7. Identify the signs of circulatory impairment caused by a cast. (C5)
8. Explain the correct manner of assisting a patient with a bedpan, urinal, NG tube and emesis basin. (C11,15,18,19)
9. Explain safe methods of restraining a pediatric patient. (C11,14,15,18,19)
10. Describe, apply, and use immobilization devices effectively. (F7, F8, F12)

ASSIGNMENT: Adler & Carlton, Ch.13, 14, 18

TOPIC: HUMAN DIVERSITY

OBJECTIVES:

The student will be able to:

1. Define human diversity and discrimination.(C9,14,F15)
    a. List the characteristics of human diversity
    b. List the traits of human diversity
2. List the elements associated with cultural competency.(C9,14,F15)
3. Name the values that are prescribed to U.S. mainstream culture.(C9,14,F15)
4. Discuss the importance of and value of diversity acceptance. (F5,6,15; C9,14,15)

ASSIGNMENT: Adler & Carlton, Ch. 10, Video

TOPIC: VITAL SIGNS

OBJECTIVES:

The student will be able to:

1. Identify the four vital (cardinal) signs.(C5,6,7,11,18,19)
2. Accurately monitor pulse rate. (C5,6,7,11,15,18,19)
3. Accurately monitor respiration rate. (C5,6,7,11,18,19)
4. Accurately monitor blood pressure. (C5,6,7,11,15,18,19)
5. Correctly read a clinical thermometer. (C5,6,7,11,15, 18,19)
6. List the rates of temperature, pulse, respiration and blood pressure that are considered within normal limits for an adult male or female. (C5,6,7,11)
7. Identify various types of oxygen administration equipment. (C15,18,19)
8. List the precautions that the radiographer must take when oxygen is being administered. (C19)

ASSIGNMENT: Adler & Carlton, Ch. 15

TOPIC: MEDICAL EMERGENCIES

OBJECTIVES:

The student will be able to:

1. Identify the observable symptoms of and explain the actions necessary in medical emergencies: (F10;C5,7,9,11,15,18,19)
   a. shock
   b. anaphylactic reaction
   c. CVA
   d. respiratory failure, airway obstruction
   e. cardiac failure
   f. fainting/falls
   g. seizure
   h. hypoglycemia
2. Describe steps taken to report a fire and radiographer's responsibility in an internal disaster.(C5,F8,9,13)
3. Explain the contrast media reaction and identify the common response to such an emergency. (C5,7,9,15,18,19)
4. Explain the purpose of an emergency cart and its contents. (F10;C3,5,6,19)

ASSIGNMENT: Adler & Carlton, Ch. 19

TOPIC: SPECIAL PROBLEMS

OBJECTIVES:

The student will be able to:

1. Identify special care considerations necessary for imaging of infants or children. (C11,14,15,18,19)
2. Identify special problems involved with imaging geriatric patients and the special care they require. (C11,14,15,18,19)
3. Describe effective methods of communicating with various types of patients.
4. Identify the precautions necessary, in the following situations: (C11,14,15,18,19)
   a. Patients with head injuries.
   b. Patients with facial injuries.
   c. Patients with possible spinal cord injuries.
   d. Patients with fractures or possible fractures.
   e. Patients that are confused, agitated, or assaultive.

5. Identify the types of tubes, catheters, and vascular access lines placed in patients and explain the precautions taken when performing a procedure on these patients.(C11,14,15,18,19)
    a. Intravenous access lines (IV)
    b. Tubes
        1. Nasogastric (NG)/gastric (GTube)
        2. Feeding tubes
        3. Indwelling chest tubes
    c. Urinary catheters or tubes
    d. Drainage tubes

ASSIGNMENT: Adler & Carlton, Ch. 11,14,15,18

TOPIC: PATIENT INTERACTIONS AND ASSESSMENT

OBJECTIVES:

The student will be able to:

1. Analyze effective methods of communicating with patients of various ages.(F5,6;C5,6,7)
2. Explain appropriate interaction techniques for various types of patients.(F5,6,9;C7,9)
3. Explain the value of obtaining patient history correctly.(F2,11,13;C5,6)
4. Differentiate objective from subjective data.(F1,7,12;C5,6)
5. Discuss appropriate methods of responding to terminally ill patients. (F5,6;C5,9)

ASSIGNMENT: Adler & Carlton, Ch. 11 & 12

TOPIC: CRITICAL THINKING SKILLS & PROBLEM SOLVING STRATEGIES

OBJECTIVES:

The student will be able to:

1. Discuss the importance of critical thinking and problem solving in the radiologic sciences.(F5,6,7;C5,6,7)
2. Describe the steps involved in problem solving.(F7,8,9;C5,6,7)
3. Analyze, determine, and apply appropriate actions for situations that require critical thinking.
4. Develop critical thinking skills as a radiologic science professional. (F7,8,9;C5,6,7)

ASSIGNMENT: Adler & Carlton, Ch. 4, Role play assigned scenarios

TOPIC: INTRODUCTION TO CLINICAL EDUCATION

OBJECTIVES:

The student will be able to:

1. Explain the purpose of and define terms that relate to the clinical education. (F8,9,11;C5,6,7)
2. Define chain of command in the clinical education setting.(F8,12;C9)
3. Explain the importance of adhering to major clinical education policies and subsequent consequences for non-adherence. (F12,13;C9,12)
4. Describe methods of assessment that can be used to measure behavioral traits, cognitive and psychomotor skills in clinical education. (F8,12;C7,9)
5. Identify and explain the policies and procedures to ensure the safety of the patient, the radiology employee, colleagues, and non-occupational individuals. This will include the following:(C15,16)
    a. Evaluation of the radiographic equipment and shielding for compliance with federal and state safety regulations.
    b. Basic radiation protection.
    c. Infection control.

ASSIGNMENT: Adler & Carlton, Ch. 5, 9 and Clinical Handbook

COURSE COMPETENCIES

Students are expected to maintain a grade average of C (75) in all Radiography classes in order to progress appropriately through the Radiography Program. Satisfactory completion of this course will prepare the student for clinical

assignments and application of principles in advanced radiographic procedures. This information will be provided to the student through a series of lectures, class discussions, video, a role playing exercise, and textbook reading assignments.

EVALUATION METHODS

The course grade will be determined by a combination of quizzes, major exams, class participation, and a comprehensive final. Students will be notified of exam dates and there will be **NO** make-up exams or quizzes given. **No exceptions**. Making exceptions constitutes discrimination against other students; therefore EXCEPTIONS will not be made. All students will be subjected to the same rules and requirements. If a test must be missed, the final exam grade will count twice. A student arriving late for an exam will not be allowed to take the exam if any student has completed the exam and left the room. This will also count as a tardy. No cell phones are allowed during exams. If for any reason the student is unable to take the FINAL exam, the student will be given an *Incomplete* for the course. The course must be completed before the next semester begins to continue in the Radiologic Technology Program.

ACADEMIC INTEGRITY

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

Cheating - Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.

Plagiarism - Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

SCANS and FOUNDATION SKILLS

Refer also to Course Objectives. SCANS and Foundation Skills attached.

SPECIFIC COURSE INFORMATION

TEXT AND MATERIALS

Adler, Arlene., Carlton, Richard., Introduction to Radiologic Sciences and Patient Care. 5th Edition, 2012. St. Louis, Missouri. Elsevier.

Radiologic Technology Program Student Handbook

ATTENDANCE POLICY

Class attendance is mandatory. Policies regarding absences coincide with those established for South Plains College, as outlined in the SPC General Catalog.

It is extremely important that students arrive for class **on time. Tardiness** disrupts the instructor and the other students. Students who chronically arrive late will be counseled and if necessary, dropped from the class regardless of their grade point average. The student should be prepared for class at the scheduled class start time. **Students with perfect attendance will be awarded 2 points to their final grade at the end of the semester.**

ASSIGNMENT POLICY

The student is responsible for being prepared for class, which means reading the assigned chapters and/or pages from the textbook. The textbook is a mandatory requirement. **The student must bring the textbook to every class.** In some instances, information from the reading assignments may be included on a test and may not have been included in the lecture.

GRADING RUBRIC

Grades in this course will be determined using the following criteria:

Assessment Tool	Assessment Criteria	Percentage Score	Grade
MAJOR EXAMS 50%	✓ Exceptional unit content knowledge & understanding	91 – 100	A
	✓ Good unit content knowledge & understanding	83 – 90	B
	✓ Average unit content knowledge & understanding	75 – 82	C
	✓ Insufficient unit content knowledge & understanding	0 – 74	F
FINAL EXAM 50%	✓ Exceptional course content knowledge & understanding	91 – 100	A
	✓ Good course content knowledge & understanding	83 – 90	B
	✓ Average course content knowledge & understanding	75 – 82	C
	✓ Insufficient unit content knowledge & understanding	0 – 74	F

Course Grade:	A	91 – 100
	B	83 – 90
	C	75 – 82
	F	0 – 74

A grade average of C (75) must be maintained in all **RAD TECH** classes. Failure to do so will result in the student being dropped from the program.

COMMUNICATION POLICY

- Electronic communication between instructor and students in this course will utilize the South Plains College "My SPC" and email systems. Instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email on a regular basis.

STUDENT CONDUCT

- Students in this class are expected to abide by the standards of student conduct as defined in the SPC Student Guide pages 12-17.

SPECIAL REQUIREMENTS

- **Cell Phones** – Cell phones are to be turned OFF during scheduled class periods, unless prior approval has been given from the instructor. This includes text messaging. Cell phones are to be used outside the classroom only.

- Students will be required to leave the classroom if a phone rings/vibrates or is texting. The student will receive an absence for the class.
- The phone number to the front desk is (806)716-4622 for emergencies.

ACCOMMODATIONS

DIVERSITY STATEMENT

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

DISABILITIES STATEMENT

ADA Statement

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) 716-4606, or Levelland (Student Services Building) 716-2577.

FOUNDATION SKILLS

BASIC SKILLS–Reads, Writes, Performs Arithmetic and Mathematical Operations, Listens and Speaks

F-1 Reading–locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.
F-2 Writing–communicates thoughts, ideas, information and messages in writing and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
F-3 Arithmetic–performs basic computations; uses basic numerical concepts such as whole numbers, etc.
F-4 Mathematics–approaches practical problems by choosing appropriately from a variety of mathematical techniques.
F-5 Listening–receives, attends to, interprets, and responds to verbal messages and other cues.
F-6 Speaking–organizes ideas and communicates orally.

THINKING SKILLS–Thinks Creatively, Makes Decisions, Solves Problems, Visualizes and Knows How to Learn and Reason

F-7 Creative Thinking–generates new ideas.
F-8 Decision-Making–specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.
F-9 Problem Solving–recognizes problems, devises and implements plan of action.
F-10 Seeing Things in the Mind's Eye–organizes and processes symbols, pictures, graphs, objects, and other information.
F-11 Knowing How to Learn–uses efficient learning techniques to acquire and apply new knowledge and skills.
F-12 Reasoning–discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

PERSONAL QUALITIES–Displays Responsibility, Self-Esteem, Sociability, Self-Management, Integrity and Honesty

F-13 Responsibility–exerts a high level of effort and perseveres towards goal attainment.
F-14 Self-Esteem–believes in own self-worth and maintains a positive view of self.
F-15 Sociability–demonstrates understanding, friendliness, adaptability, empathy and politeness in group settings.
F-16 Self-Management–assesses self accurately, sets personal goals, monitors progress and exhibits self-control.
F-17 Integrity/Honesty–chooses ethical courses of action.

SCANS COMPETENCIES

C-1 **TIME** - Selects goal - relevant activities, ranks them, allocates time, prepares and follows schedules.
C-2 **MONEY** - Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives.
C-3 **MATERIALS AND FACILITIES** - Acquires, stores, allocates, and uses materials or space efficiently.
C-4 **HUMAN RESOURCES** - Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

INFORMATION - Acquires and Uses Information

C-5 Acquires and evaluates information.
C-6 Organizes and maintains information.
C-7 Interprets and communicates information.
C-8 Uses computers to process information.

INTERPERSONAL–Works With Others

C-9 Participates as a member of a team and contributes to group effort.
C-10 Teaches others new skills.
C-11 Serves Clients/Customers–works to satisfy customer's expectations.
C-12 Exercises Leadership–communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
C-13 Negotiates-works toward agreements involving exchanges of resources; resolves divergent interests.
C-14 Works With Diversity–works well with men and women from diverse backgrounds.

SYSTEMS–Understands Complex Interrelationships

C-15 Understands Systems–knows how social, organizational, and technological systems work and operates effectively with them.
C-16 Monitors and Corrects Performance–distinguishes trends, predicts impacts on system operations, diagnoses systems performance and corrects malfunctions.
C-17 Improves or Designs Systems–suggests modifications to existing systems and develops new or alternative systems to improve performance.

TECHNOLOGY–Works with a Variety of Technologies

C-18 Selects Technology–chooses procedures, tools, or equipment, including computers and related technologies.
C-19 Applies Technology to Task–understands overall intent and proper procedures for setup and operation of equipment.

C-20 Maintains and Troubleshoots Equipment–prevents, identifies, or solves problems with equipment, including computers and other technologies.