

South Plains College-Reese Center
Course Syllabus

COURSE: RADR 1309.200 (3:0:0), Introduction to Radiography and Patient Care

SEMESTER: Fall 2017

CLASS TIMES: MW: 10:00-11:20

INSTRUCTOR: Erica Castillo

OFFICE: RC 512H

OFFICE HOURS: MW: 11:30-2:30 TR: 9:00-11:00; by appointment F: 9:00-11:00

OFFICE PHONE: 806-716-4628

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Facebook: The radiologic technology program has a Facebook page at www.facebook.com/spradiologictechnologyprogram. 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 is a 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 profession 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.

PURPOSE

This course will provide the necessary information that will allow the student to assume the responsibilities of radiation protection for patients and personnel, including him or herself.

END-OF-COURSE OUTCOMES

Define basic medical terms; identify ethical and legal standards; explain basic radiation protection practices; assess patient condition; describe infection control procedures; recognize and respond to emergency situations; identify relevant pharmaceuticals and their applications; and describe basic medical equipment operations.

LICENSING/CERTIFICATION AGENCY

American Registry of Radiologic Technologists

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, videos, a role playing exercises, and textbook reading assignments.

EVALUATION METHODS

The course grade will be determined by a combination of lab proficiencies, pop quizzes, major exams and a comprehensive final exam.

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, final examinations, 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.

If found cheating or plagiarizing, the student's future in this program will be based on the decisions from the Allied Health Departmental Director's Committee.

SCANS and FOUNDATION SKILLS

Scans and foundation skills are identified for specific course objectives. A complete list explaining these skills is attached to the back of the syllabus for your information.

SPECIFIC COURSE INFORMATION

TEXT AND MATERIALS

Adler, Arlene., Carlton, Richard., Introduction to Radiologic & Imaging Sciences & Patient Care. 6th Edition, 2016. St. Louis, Missouri. Elsevier.

ATTENDANCE POLICY

SPC - Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive as defined in the course syllabus.

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of "X" or "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

SPC Radiologic Technology - Class attendance is mandatory. Students with **3 absences** will be counseled. **Students are allowed 5 absences during fall semester.** After the 5th absence, the student will be dropped from the program. 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. The student should be prepared for class at the scheduled class start time. **3 tardies will equal one absence.**

Students with perfect attendance and 2 or less tardies will be awarded 2 points to their final grade at the end of the semester.

***A daily attendance sheet will be signed by each student promptly before class starts. If a student is tardy, it is their responsibility to sign the sheet AFTER class. Attendance and tardies of the day will be recorded from the signed sheet.**

CLASS PREPARATION POLICY

The student is responsible for being prepared for class, which means reading the assigned chapters and/or pages from the textbook prior to class. The textbook is a mandatory requirement. **The student must bring the textbook/e-book to every class.** **ANY information covered in class and/or from any reading assignments not covered during class may still be included on an exam.**

GRADING POLICY

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

Assessment Tool	Assessment Criteria	Percentage Score	Grade
SIM LAB PROFICIENCIES 10%	✓ Exceptional unit content knowledge & understanding	90 – 100	A
	✓ Good unit content knowledge & understanding	80 – 89	B
	✓ Average unit content knowledge & understanding	75 – 79	C
	✓ Unacceptable unit content knowledge & understanding	0 – 74	F
POP QUIZZES 10%	✓ Exceptional unit content knowledge & understanding	90 – 100	A
	✓ Good unit content knowledge & understanding	80 – 89	B
	✓ Average unit content knowledge & understanding	75 – 79	C
	✓ Unacceptable unit content knowledge & understanding	0 – 74	F
MAJOR EXAMS (5) 50%	✓ Exceptional course content knowledge & understanding	90 – 100	A
	✓ Good course content knowledge & understanding	80 – 89	B
	✓ Average course content knowledge & understanding	75 – 79	C
	✓ Unacceptable unit content knowledge & understanding	0 – 74	F
FINAL EXAM 30%	✓ Exceptional unit content knowledge & understanding	90 – 100	A
	✓ Good unit content knowledge & understanding	80 – 89	B
	✓ Average unit content knowledge & understanding	75 – 79	C
	✓ Unacceptable unit content knowledge & understanding	0 – 74	F

Course Grade: A	90 – 100
B	80 – 89
C	75 – 79
F	0 – 74

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

CLASS ASSIGNMENTS

Sim Lab Proficiencies – 10%

Two lab proficiencies will be given when visiting the Sim Lab. Proficiencies will be graded by a check off list that will be given to the student prior to the Sim Lab visit.

The following guidelines will be followed regarding **Sim Lab Proficiencies**:

1. The student will have prior review and study of the check off list
2. The student will not use the check off list to complete the proficiencies

Pop Quizzes – 10%

Pop quizzes will be randomly given throughout the semester to assure that the student is comprehending the modules presented. Pop quizzes will be multiple choice, fill in the blank and/or matching. They will be taken in the classroom using a pen and paper or electronically in the computer lab.

The following guidelines will be followed regarding **Pop Quizzes**:

1. The student must complete the pop quiz in the allotted time given by the instructor.
2. There will be **NO** make-up pop quizzes.
3. If a pop quiz is missed, the student will receive a zero for the quiz.
4. A student arriving late during a pop quiz will not be allowed to take the exam if **any** student has completed the quiz and left the room. This will also count as a tardy.
5. **Only** a blank paper and pencil/pen may be used during a quiz.

Major Exams – 50% - Each individual major exam is worth 10%

Five scheduled major exams will be given throughout the semester following each module presented. Exams will be multiple choice and matching and will be taken electronically in the computer lab.

The following guidelines will be followed regarding **Major Exams**:

1. The student will complete the exam at the scheduled time. Make up exams are at the instructor's discretion.
2. The student must complete the exam within the allotted class time of **1 hour and 15 min.**
3. If a test must be missed, the weight of the final exam will be increased.
4. A student arriving late for an exam will not be allowed to take the exam if **any** student has completed the exam and has left the room. This will also count as a tardy.
5. **Only** a blank paper and pencil/pen may be used during an exam.
6. **NO** cell phones or other electronic assistance are allowed during exams.
7. According to SPC policy, **a student's grade will not be given over the phone or by email to avoid the risk of a breach of confidentiality.**

Final Exam – 30%

A scheduled comprehensive final exam will be given at the end of the semester. Two hours will be allotted for an exam of approximately 110 multiple choice questions and will be taken electronically in the computer lab.

The following guidelines will be followed regarding the **Final Exam**:

1. The final exam will be comprehensive.

2. The final exam must be completed within the allotted time, **2 hours**.
3. A student arriving late for an exam will not be allowed to take the final exam if **any** student has completed the exam and left the room.
4. **Only** a blank paper and pencil/pen may be used during the final exam.
5. **NO** cell phones or other electronic assistance are allowed during exams.
6. If a student is unable to take the final exam at the assigned time for any reason, the student may be given an incomplete for the course.
7. According to SPC policy, **a student's grade will not be given over the phone or by email to avoid the risk of a breach of confidentiality.**

COMMUNICATION POLICY

Electronic communication between instructor and students in this course will utilize the South Plains College "My SPC" email systems and Remind[®]. The instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email on a **daily basis**.

STUDENT CONDUCT

Students in this class are expected to abide by the standards of student conduct as defined in the SPC Student Guide and the Radiologic Technology Program Student Handbook.

CELL PHONES

Cellphones may stay on the student's desk, however, they are to be turned **OFF** or put on **silent** during scheduled class/lab periods, unless prior approval has been given from the instructor. **THIS INCLUDES TEXT MESSAGING AND/OR INTERNET BROWSING.** Cell phones are to be used outside of the classroom only.

Students will be dismissed from class/lab and sent home if a phone continuously rings/vibrates or if the student is discovered texting or browsing the internet. If dismissed from class, the student will receive an **absence** for the class. In case of emergencies, the student can also be reached by calling the front desk at (806)716-4622.

CONFERENCES

If at any time a student is not satisfied with their overall performance, he/she is encouraged to schedule an appointment with the instructor. If necessary, a plan can be developed to help the student improve in their areas of weakness.

ACCOMMODATIONS

DISABILITY 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 at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

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.

CAMPUS CONCEALED CARRY

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php)

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

COURSE OUTLINE AND OBJECTIVES

RADIOLOGIC SCIENCES & THE HEALTH CARE DELIVERY SYSTEM

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)

RADIOLOGIC SCIENCE ACCREDITATION, CREDENTIALING AND PROFESSIONAL ORGANIZATIONS

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)

HOSPITAL AND RADIOLOGY DEPARTMENT ORGANIZATION

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.

ETHICS AND PROFESSIONALISM

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)

HEALTH RECORDS AND CONFIDENTIALITY

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)

LEGAL RESPONSIBILITIES

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)

PATIENT CONSENT

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)

INFECTION CONTROL

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)

MEDICAL & SURGICAL ASEPSIS

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.

BASIC PATIENT CARE

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)

HUMAN DIVERSITY

The student will be able to:

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

VITAL SIGNS

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)

MEDICAL EMERGENCIES

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)

SPECIAL PROBLEMS

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
 - c. Nasogastric (NG)/gastric (G-Tube)
 - d. Feeding tubes
 - e. Indwelling chest tubes
 - f. Urinary catheters or tubes
 - g. Drainage tubes

PATIENT INTERACTIONS AND ASSESSMENT

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)

CRITICAL THINKING SKILLS & PROBLEM SOLVING STRATEGIES

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)

INTRODUCTION TO CLINICAL EDUCATION

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.

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.



I have received a copy of the RADR 1309 course syllabus. I have read and understand the contents of this syllabus.

Printed Name

Signature

Date