# South Plains College - Reese Center Course Syllabus

COURSE:	RADR 2333.200 (3:3:0), Advanced Medical Imaging
SEMESTER:	Fall 2019
CLASS TIMES:	TR: 11:00-12:15
INSTRUCTOR:	Erica Castillo
OFFICE:	RC 512H
OFFICE HOURS:	MW: 11:30-2:30 TR: 9:00-11:00 F: by appointment
OFFICE PHONE:	806-716-4628
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FACEBOOK:	www.facebook.com/spcradiologictechnologyprogram

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

#### GENERAL COURSE INFORMATION

\*It is the responsibility of each student to be familiar with the content and requirements listed in the course syllabus.\*

### **COURSE DESCRIPTION**

This course focuses on an exploration of specialized imaging modalities.

#### **COURSE OBJECTIVE**

The student will be introduced to the basics of the available advanced imaging modalities used in the assessment of anatomy and diagnosis of disease processes. (F1,2,5,10,12;C5,6,7,8,15)

#### STUDENT LEARNING OUTCOMES

Describe the various specialized imaging modalities; and differentiate between images produced by different modalities and identify the anatomy demonstrated.

## **EVALUATION METHODS**

The course grade will be determined by major exams, pop quizzes, discussion posts 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, as well as final examinations, to daily reports and to term papers and projects.

**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.

## **BLACKBOARD**

Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester.

The student should only access his or her own Blackboard account. Granting permission to another or accessing another student's Blackboard account is prohibited and against the Academic Integrity code.

### **FACEBOOK**

The Radiologic Technology Program has a Facebook page at <u>www.facebook.com/spcradiologictechnologyprogram</u>. In addition to the South Plains College website, this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains College announcements and with program recruitment. "Liking" the Radiologic Technology Program's Facebook page is not mandatory, however a personal Facebook account <u>is</u> needed in order to access this page.

#### 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

## **REQUIRED TEXT AND MATERIALS**

Frank, Eugene. Merrill's Atlas of Radiographic Positioning and Procedures. 14th Edition.

Merrill's Atlas of Radiographic Positioning and Procedures Workbook. 14th Edition

Bushong, Stewart C. Radiologic Science for Technologists. 10th Edition.

#### **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 **three** (**3**) **absences** will be counseled. Students are allowed five (5) absences during fall semester. After the 5<sup>th</sup> absence, the student will be dropped from the program regardless of the student's grade. 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 two (2) or less tardies will be awarded two (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.

#### **INSTRUCTIONAL METHODS**

The student will receive course information through a series of lectures, PowerPoint presentations, lab assignments, and textbook assignments.

#### **CLASSROOM PARTICIPATION**

Attending class regularly will provide the student opportunity to supplement their reading assignments and acquire a better understanding of the course material. Class time missed will result in information gaps and will increase course difficulty. It is the student's responsibility to attend class which will enable him or her to take notes, ask questions, and participate in class discussions. Information handouts may be given in certain instances, but the student should not rely on them. The student is encouraged to take adequate notes during class. Recording class is permitted.

#### **ASSIGNMENT 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**. In some instances, information from the reading assignments not covered during class may be included on an exam.

#### **COMPUTER USAGE**

As computer technology in the field of health occupations continues to become more popular, computers will be used in this course for several assignments. All students have access to computers and printers on the South Plains College campus. Students will be expected to utilize computers to access assignments and classroom resources. All registered students are supplied with a working email account from South Plains College. In order to take exams, students must have their user name and password.

## ALL STUDENTS ARE EXPECTED TO KNOW THEIR SPC STUDENT USER NAME AND PASSWORD.

## **COMPUTER LAB USAGE**

The computer lab(s) on any campus may be used by students during scheduled open hours or as assigned by an instructor. Printer paper will not be provided for students to print materials, but students may seek assistance from faculty or staff to request lab paper from the college if needed. Lack of computer lab paper is not an excuse for not having homework assignments, skills lab sheets, or any other required documents. Students should come prepared for class.

#### **REVIEW**

If a student needs assistance with reviewing any of the information giving during class or lab, the student is encouraged to make an appointment with the instructor.

#### **CONFERENCES**

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

## **GRADING RUBRIC**

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

Assessment Tool	Assessment Criteria	Percentage Score	Grade
	<ul> <li>✓ Exceptional unit content knowledge &amp; understanding</li> </ul>	90 - 100	A
	✓ Good unit content knowledge & understanding	80 - 89	В
MAJOR EXAMS 50% POP QUIZZES 10%	<ul> <li>✓ Average unit content knowledge &amp; understanding</li> </ul>	75 – 79	C
	<ul> <li>✓ Unacceptable unit content knowledge &amp; understanding</li> </ul>	0-74	F
	<ul> <li>✓ Exceptional unit content knowledge &amp; understanding</li> </ul>	90 - 100	A
	✓ Good unit content knowledge & understanding	80 - 89	В
	<ul> <li>✓ Average unit content knowledge &amp; understanding</li> </ul>	75 – 79	C
	<ul> <li>✓ Unacceptable unit content knowledge &amp; understanding</li> </ul>	0-74	F
DISCUSSION BOARD 10%	<ul> <li>✓ Exceptional unit content knowledge &amp; understanding</li> </ul>	90 - 100	A
	✓ Good unit content knowledge & understanding	80 - 89	В
	<ul> <li>✓ Average unit content knowledge &amp; understanding</li> </ul>	75 – 79	C
	<ul> <li>✓ Unacceptable unit content knowledge &amp; understanding</li> </ul>	0-74	F
FINAL EXAM 30%	<ul> <li>Exceptional course content knowledge &amp; understanding</li> </ul>	90 - 100	A
	<ul> <li>✓ Good course content knowledge &amp; understanding</li> </ul>	80 - 89	В
	<ul> <li>✓ Average course content knowledge &amp; understanding</li> </ul>	75 – 79	C
	<ul> <li>✓ Unacceptable unit content knowledge &amp; understanding</li> </ul>	0 – 74	F

 $\begin{array}{ccc} \textbf{Course Grade: A} & 90-100 \\ B & 80-89 \\ C & 75-79 \\ F & 0-74 \end{array}$ 

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**

### Major Exams – 50%

Four 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 hours and 15 min.
- 3. If an exam 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 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, smart watches, calculators or other electronic assistance are allowed during exams.

## **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.

## **Discussion Board – 10%**

There will be a discussion board topic after every site visit/guest speaker. Each student will post their discussion under the modality that was gone over. If the site visit/guest speaker is on a **Tuesday**, the discussion post is due by **Friday at 12:00pm (noon)**. If the guest speaker is on a **Thursday**, the discussion post is due by **Monday at 8:00am**.

The following guidelines will be followed regarding the **Discussion Board**:

- 1. The student must complete the discussion board post by the due date mentioned above.
- 2. Each post must be 150 words long and include what you thought about the modality, what you liked about the modality and if it is a modality you would/would not be interested in pursuing. It is not required, but you may also include in the post, any experience you may have had with the modality.
- 3. If a post is late, the student will earn a zero (0) for that post. The discussion post will close and will not be accessible immediately after the due date.
- 4. If the student does not include everything in guideline #2, points will be deducted.

# Final Exam – 30%

A 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, smart watches, calculators 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.

## **COMMUNICATION POLICY**

Electronic communication between instructor and students in this course will utilize the South Plains College "My SPC" email systems and Remind <sup>®</sup>. 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.

Rules and regulations relating to the students at South Plains College are made with the view of protecting the best interests of the individual, the general welfare of the entire student body and the educational objectives of the college. As in any segment of society, a college community must be guided by standards that are stringent enough to prevent disorder, yet moderate enough to provide an atmosphere conducive to intellectual and personal development.

A high standard of conduct is expected of all students. When a student enrolls at South Plains College, it is assumed that the student accepts the obligations of performance and behavior imposed by the college relevant to its lawful missions, processes and functions. Obedience to the law, respect for properly constituted authority, personal honor, integrity and common sense guide the actions of each member of the college community both in and out of the classroom.

Students are subject to federal, state and local laws, as well as South Plains College rules and regulations. A student is not entitled to greater immunities or privileges before the law than those enjoyed by other citizens. Students are subject to such reasonable disciplinary action as the administration of the college may consider appropriate, including suspension and expulsion in appropriate cases for breach of federal, state or local laws, or college rules and regulations. This principle extends to conduct off-campus which is likely to have adverse effects on the college or on the educational process which identifies the offender as an unfit associate for fellow students.

Any student who fails to perform according to expected standards may be asked to withdraw.

Rules and regulations regarding student conduct appear in the current Student Guide.

#### **CELL PHONES**

Cellphones are to be turned <u>OFF</u> 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 <u>outside</u> of the classroom during class hours.

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.

#### **CAMPUS CARRY**

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.

# 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**

Any students who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students must present appropriate verification from the SPC Disability Service Office during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodations until appropriate verification from the SPC Disability Service Office has been provided. For more information, you may contact the Disability Services Office (located in the Health & Wellness Center) at 806-716-2529 or visit <a href="http://www.southplainscollege.edu/health/disabilityservices.php">http://www.southplainscollege.edu/health/disabilityservices.php</a>.

#### PREGNANCY ACCOMMODATIONS STATEMENT

If you are pregnant, or have given birth within six months, under Title IX you have a right to reasonable accommodations to help continue your education. Students who wish to request accommodations must contact the Health and Wellness Center at 806-716-2529 to initiate the process.

# **COURSE OUTLINE**

# MYELOGRAPHY

The student will:

- 1. Identify the anatomy visualized by this radiographic procedure. (F10;C5,7)
- 2. Identify the more common indications and contraindications (if applicable) for this radiographic procedure. (F8;C5,7)
- 3. Identify the equipment and approach for this radiographic procedure. (C5-7,18,19)
- 4. Identify the contrast media used for this radiographic procedure. (C19)
- 5. Identify the elements of patient and anatomical positioning used for this radiographic procedure. (C5,7)
- 6. Identify the possible complications of this radiographic procedure. (F8;C5,7)
- 7. Identify the more common findings of this radiographic procedure. (C5)
- 8. Define pathologies and abnormalities affecting the spinal column.

## ARTHROGRAPHY

The student will:

- 1. Identify the anatomy visualized by this radiographic procedure. (F10;C5,7)
- 2. Identify the more common indications and contraindications (if applicable) for this radiographic procedure. (F8;C5,7)
- 3. Identify the equipment and approach for this radiographic procedure. (C5-7,18,19)
- 4. Identify the contrast media used for this radiographic procedure. (C19)
- 5. Identify the elements of patient and anatomical positioning used for this radiographic procedure. (C5,7)
- 6. Identify the possible complications of this radiographic procedure. (F8;C5,7)
- 7. Identify the more common findings of this radiographic procedure. (C5)
- 8. Define pathologies and abnormalities affecting the joints of the human body.

# MAMMOGRAPHY

The student will:

- 1. Explain the fundamentals of mammography (F10;C5,6,15)
- 2. Differentiate between mammography and conventional radiography. (F10;C5,6,15)
- 3. Identify the physical principles of mammography. (F10;C5,6,15)
- 4. Identify the significance of the mammography.
- 5. Identify the components of the mammography system. (F10;C5,6,15)
- 6. Discuss the safety of mammography.
- 7. Identify the imaging parameters of a mammography protocol. (F10;C5,6,15)
- 8. Discuss the positioning of the mammography patient.
- 9. Discuss the issues of patient monitoring during a mammography procedure.
- 10. Discuss the use of interventional procedures in mammography.
- 11. Identify the clinical applications of mammography.

# DIAGNOSTIC ULTRASOUND

The student will:

- 1. Explain the principles of diagnostic ultrasound. (F10;C5,6,15)
- 2. Identify the properties of sound waves: acoustic impedance and velocity of sound.
- 3. Explain the process of transducer selection in diagnostic ultrasound. (F10;C5,6,15)
- 4. Differentiate between volume scanning and three-dimensional and four-dimensional ultrasound imaging.
- 5. Identify the characteristics of the sonographic image.
- 6. Identify the clinical applications of diagnostic ultrasonography.

# SECTIONAL ANATOMY OVERVIEW

The student will:

- 1. Identify the imaging modalities that produce cross-sectional images. (C15)
- 2. Identify the advantages of cross-sectional images. (C15)
- 3. Identify and differentiate between the major imaging planes used in producing cross-sectional images. (C15)
- 4. Identify the characteristics of computerized tomography cross-sectional images. (C15)
- 5. Identify the characteristics of magnetic resonance cross-sectional images. (F1,10;C5)
- 6. Identify major anatomical structures in examples of CT and MRI cross-sectional images. (F1,10;C5)

# COMPUTED TOMOGRAPHY (CT)

The student will:

- 1. Explain the fundamentals of computed tomography (CT). (F10;C5,6,15)
- 2. Differentiate between computed tomography and conventional radiography. (F10;C5,6,15)
- 3. Identify and differentiate between the different generations of computed tomography scanners. (F10;C5,6,15)
- 4. Identify the technical aspects of the CT image. (F10;C5,6,15)
- 5. Identify the components of the CT system. (F10;C5,6,15)
- 6. Identify and differentiate between the diagnostic applications of CT.
- 7. Explain the use of contrast material used in CT.
- 8. Identify and explain the factors affecting the CT image quality. (F10;C5,6,15)
- 9. Identify and differentiate between the special features of various CT systems. (F10;C5,6,15)
- 10. Identify and explain the factors affecting radiation dose received from a CT procedure.

## MAGNETIC RESONANCE IMAGING (MRI)

The student will:

- 1. Explain the fundamentals of magnetic resonance imaging (MRI). (F10;C5,6,15)
- 2. Differentiate between magnetic resonance imaging and conventional radiography. (F10;C5,6,15)
- 3. Identify the physical principles of MRI signal production. (F10;C5,6,15)
- 4. Identify the significance of the MRI signal.
- 5. Identify the components of the MRI system. (F10;C5,6,15)
- 6. Discuss the safety of MRI.
- 7. Identify the imaging parameters of a MRI protocol. (F10;C5,6,15)
- 8. Discuss the positioning of the MRI patient.
- 9. Discuss the issues of patient monitoring during an MRI procedure.
- 10. Discuss the use of contrast media in MRI.
- 11. Identify the clinical applications of MRI.
- 12. Describe functional MRI. (F10;C5,6,15)

# VASCULAR, CARDIAC & INTERVENTIONAL ANGIOGRAPHY

The student will:

- 1. Differentiate between angiography, arteriography and venography.
- 2. Identify and describe the injection techniques used in angiography.
- 3. Describe the elements of a digital subtraction angiographic procedure. (C15,18,19)
- 4. Identify the elements that influence magnification in angiographic imaging procedures.
- 5. Describe the procedure for performing three-dimensional intra-arterial angiography. (C15,18,19)
- 6. Identify the necessary supplies and equipment for angiography.
- 7. Identify the advantages of catheterization over needle injection of angiographic contrast media.
- 8. Identify and describe the steps in catheterization for angiography. (C15,18,19)
- 9. Identify the pertinent protocol information for:
  - Thoracic aortography. (C15,18,19)
  - Abdominal aortography. (C15,18,19)
  - Pulmonary arteriography. (C15,18,19)
  - Selective abdominal visceral arteriographic procedures. (C15,18,19)
- 10. Identify the purpose of percutaneous transluminal angioplasty and stenting.
- 11. Identify and define the principles of cardiac catheterization. (C15,18,19)
- 12. Identify the general indications, contraindications and associated risks of cardiac catheterization. (F8;C5,7)
- 13. Identify the methods of introducing the cardiac catheter. (C15,18,19)
- 14. Identify the basic elements of cardiac catheterization studies and procedures. (C15,18,19)

# 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 2333-200 course syllabus. I have read and understand the contents of this syllabus.

**Printed Name** 

Signature

Date