

South Plains College-Reese Campus  
Course Syllabus

COURSE: **RADR 2301.001 (3:2:2), Intermediate Radiographic Procedures**  
SEMESTER: **Spring 2019**  
CLASS TIMES: **MW 11:00 to 12:15**  
LAB TIMES: **W 1:00 to 3:00**  
INSTRUCTOR: **Erica Castillo**  
OFFICE: **RC 512H**  
OFFICE HOURS: **MTWRF 9:00-11:00 & by appointment**  
OFFICE PHONE: **(806)716-4628**  
E-MAIL: [ecastillo@southplainscollege.edu](mailto:ecastillo@southplainscollege.edu)  
FACEBOOK: The radiologic technology program has a Facebook page at [www.facebook.com/spradiologictechnologyprogram](http://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 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."*

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**GENERAL COURSE INFORMATION**

**COURSE DESCRIPTION**

This course is a continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment and the evaluation of images for proper demonstration of the anatomy.

**COURSE OBJECTIVE**

The student will participate in the skull, mobile, surgical, trauma, anterior neck, abdomen, digestive system (alimentary canal) and urinary system radiographic procedures of a medical imaging facility. (F2, 5, 6; C15, 16, 17, 18, 19, 20)

**END OF COURSE OUTCOMES**

Manipulate equipment; perform intermediate level procedures in positioning; align anatomic structures and equipment; and evaluate images.

**EVALUATION METHODS**

The course grade will be determined by a combination of major exams, a pathology project, 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 exams of whatever length, final examinations, 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.**

### **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.

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## **SPECIFIC COURSE INFORMATION**

### **TEXT AND MATERIALS**

Long, B.W., Rollins, J.H., Smith, B.J., Merrill's Atlas of Radiographic Positioning & Procedures and Merrill's Pocket Guide to Radiography. 13<sup>th</sup> Edition, 2016. St. Louis, MI: 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 and lab attendance is mandatory. During class, the student will have the opportunity to acquire the knowledge and skills required of a staff radiographer. During lab, the student will have the opportunity to

practice those skills learned in class and achieve competency in radiographic imaging. These skills are not only important to the student's success in achieving the objectives of this course, but also insuring the effectiveness of the clinical and practicum courses that will enable the student to complete the clinical competencies required for graduation and ARRT certification board exam eligibility.

**Students are allowed 5 absences during the Spring semester.** A student with **3 absences** will be counseled. A student will be dropped from the program after **exceeding 5 absences**, 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 and lab **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 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 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
<b>PATHOLOGY PROJECT 20%</b>	✓ 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
<b>MAJOR EXAMS 50%</b>	✓ 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
<b>FINAL EXAM 30%</b>	✓ 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

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

### Pathology Project – 20%

A pathology project will be worked on throughout the semester outside of class.

The following guidelines will be followed regarding **Pathology Project**:

1. The student will have a pathology project rubric to follow.
2. Each student will prepare a pathology project that will be presented orally by power point to the class.
3. Examples of the pathology project can be found on Blackboard.

4. The student will work on the pathology project outside of class.
5. The student must work on the pathology project independent from other students however, help from the instructor is permitted.
6. The pathology project is due by the assigned due dates and times. Due dates are posted on the class schedule the grading rubric found on Blackboard. **Late work will NOT be accepted.**

### Major Exams – 50%

Five scheduled major exams will be given throughout the semester following each module presented. Exams will be given 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 **75 min.**
3. 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.
4. **Only** a blank paper and pencil/pen may be used during an exam.
5. **NO** cell phones or other electronic assistance are allowed during exams.
6. 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. The final exam will be given electronically in the computer lab.

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

1. The final exam must be completed within the allotted time, **120 min.**
2. 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.
3. **Only** a blank paper and pencil/pen may be used during the final exam.
4. **NO** cell phones or other electronic assistance are allowed during exams.
5. 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.
6. 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.**

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### 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.

### 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 only outside of the classroom while class is in session.

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/lab, 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.

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## **ACCOMMODATIONS**

### **DISABILITIES 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.

### **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. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Crystal Gilster, Director of Health and Wellness at 806-716-2362 or email [cgilster@southplainscollege.edu](mailto:cgilster@southplainscollege.edu) for assistance.

### **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](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

### SKULL, FACIAL BONES & SINUSES

The student will:

1. Review and identify the anatomy of the skull, facial bones and sinuses.
2. Identify the variations of thorax viscera due to the differences in body habitus.
3. Identify and describe the procedure for each radiographic projection of the skull, facial bones and sinuses covered in class, including patient position, anatomical structure position, and alignment of the central ray, image receptor and anatomical structure.
4. Identify and describe the structures demonstrated best in each projection covered in class including the use of illustrations and radiographic images.
5. Identify and describe the evaluation criteria for each projection covered in class.
6. Define pathologies and abnormalities affecting the skull, facial bones and sinuses.

TEXTBOOK READING ASSIGNMENT: **Merrill's Atlas, Vol. II**, Chapter 20

### MOBILE, TRAUMA & SURGICAL RADIOGRAPHY

The student will:

1. Identify and differentiate between the battery-operated mobile x-ray unit and the capacitor-discharge mobile x-ray unit.
2. Identify and explain the technical considerations pertinent to mobile and trauma radiography.
3. Identify and explain factors relative to effective radiation protection in mobile and trauma radiography. (F8,9;C3,15,18,19,20)
4. Identify and explain isolation considerations in mobile and trauma radiography. (F8,9;C3,15,18,19,20)
5. Identify and explain the steps in performing mobile and trauma radiography.
6. Identify and explain the adapted procedures common to mobile and trauma radiography for the following:
  - Spine
  - Chest
  - Abdomen
  - Cranium
  - Facial bones
  - Upper and lower extremities
7. Identify the members of the surgical team. (C9)
8. Identify and explain the function of the members of the sterile team. (C9)
9. Identify and explain the function of the members of the non-sterile team. (C9)
10. Identify the components of proper operating room attire and explain their function. (C15,18,19)
11. Identify the proper procedures for maintaining a sterile field in the operating suite. (C15,18,19)
12. Identify the proper handling of the image receptor in the sterile field. (C15,18,19)
13. Identify the principles of aseptic technique in the operating suite. (C15,18,19)
14. Identify the radiographic equipment utilized in the operating suite and the proper care and cleaning of the equipment. (C15,18,19)

Text Assignment: **Merrill's Atlas**, Vol. II, Ch. 13; Vol. III, Ch. 26 & 27

## G I ANATOMY

The student will:

7. Identify the anatomy of the
  - a. Neck. (F1)
  - b. Thyroid gland. (F1)
  - c. Parathyroid glands. (F1)
  - d. Pharynx. (F1)
  - e. Larynx. (F1)
8. Differentiate between the methods of radiographic examination of the throat structures. (C5,15,18)
9. Identify and describe the procedure for each radiographic projection, to include patient position, anatomical structure position, and alignment of the central ray, image receptor and anatomical structure of the
  - a. Pharynx and larynx. (C5,15,18)
  - b. Soft palate, pharynx and larynx. (C5,15,18)
10. Identify and describe the evaluation criteria for each projection of the
  - a. Pharynx and larynx. (F9,10;C16)
  - b. Soft palate, pharynx and larynx. (F9,10;C16)

TEXTBOOK READING ASSIGNMENT: **Merrill's Atlas, Vol. II**, Chapter 15, 16, 17

## ABDOMEN

The student will:

1. Identify the anatomy of the abdominopelvic cavity. (F1)
2. Identify the exposure requirements of abdominal radiographic procedures. (C18)
3. Identify the immobilization requirements of abdominal radiographic procedures. (C18)
4. Identify the projections and positioning protocols for abdominal radiographic procedures. (C18)
5. Explain the importance of correct sequencing of abdominal projections. (C15)
6. Identify the correct sequence of abdominal projections. (C15)
7. Identify and describe the procedure for each radiographic projection of the abdomen covered in class, including patient position, anatomical structure position, and alignment of the central ray, image receptor and anatomical structure. (C5,15,18)
8. Identify and describe the structures demonstrated best in each abdomen projection covered in class including the use of illustrations and radiographic images.
9. Identify and describe the evaluation criteria for each abdomen projection covered in class. (F9,10;C16)

TEXTBOOK READING ASSIGNMENT: **Merrill's Atlas, Vol. II**, Chapter 16

## DIGESTIVE SYSTEMS

The student will:

1. Review and identify the anatomy of the
  - a. Digestive system. (F1)
  - b. Esophagus. (F1)
  - c. Stomach. (F1)
  - d. Small intestine. (F1)
  - e. Large intestine. (F1)
  - f. Liver and biliary system. (F1)
  - g. Pancreas and spleen. (F1)

2. Identify the exposure considerations for alimentary canal radiography. (C18)
3. Explain the importance of radiation protection in radiography of the alimentary canal. (C15)
4. Identify ways to reduce excessive radiation exposure during alimentary canal radiography. (C15)
5. Identify the purpose of contrast media radiographic procedures of the esophagus. (C15)
6. Describe the barium sulfate mixture for a full-column, single contrast technique used in esophageal radiography.
7. Identify the steps for a full-column, single contrast technique used in esophageal radiography. (C15,18)
8. Identify the procedure for radiographic demonstration of opaque foreign bodies in the pharynx or upper part of the esophagus. (C15,18)
9. Identify and describe the procedure, including patient position, anatomical structure position, and alignment of the central ray, image receptor and anatomical structure, for each radiographic projection of the
  - a. Esophagus. (C15,18)
  - b. Stomach and duodenum. (C15,18)
  - c. Superior stomach and distal esophagus. (C15,18)
  - d. Small intestines. (C15,18)
  - e. Large intestines. (C15,18)
10. Differentiate between single-contrast barium enemas and double-contrast barium enemas used in radiography of the large intestines. (C15,18)
11. Describe the preparation of barium sulfate suspensions for radiographic procedures of the large intestines. (C15,18)
12. Describe the patient preparation for radiographic procedures of the large intestines. (C15,18)
13. Identify the standard barium enema apparatus for large intestine radiography.
14. Describe the process of enema tip insertion for large intestine radiography. (C15,18)
15. Describe percutaneous transhepatic cholangiography. (C15,18)
16. Describe postoperative (T-tube) cholangiography. (C15,18)
17. Describe endoscopic retrograde cholangiopancreatography. (C15,18)
18. Describe the process of radiographically demonstrating an abdominal fistulae or sinus. (C15,18)

TEXTBOOK READING ASSIGNMENT: Merrill's Atlas, Vol. II, Chapter 15, 16 & 17

## **URINARY SYSTEMS & VENIPUNCTURE**

The student will:

1. Review and identify the anatomy of the
  - a. Urinary system. (F1)
  - b. Suprarenal glands. (F1)
  - c. Kidneys. (F1)
  - d. Ureters. (F1)
  - e. Urinary bladder. (F1)
  - f. Urethra. (F1)
  - g. Prostate. (F1)
2. Explain the importance of radiation protection in radiography of the urinary system. (C15)
3. Identify the purpose of contrast media radiographic procedures of the urinary system. (C15)
4. Differentiate between antegrade filling and retrograde filling when introducing contrast material into the urinary system. (C15)
5. Describe the contrast material used in radiography of the urinary system. (C15)
6. Describe the preparation of the intestinal tract for urinary system radiography. (C15)
7. Describe the preparation of the patient for urinary system radiography. (C15)
8. Identify the equipment requirements for urinary system radiography. (C15)
9. Identify the indications for intravenous urography (IVU). (C5,15)
10. Describe the radiographic procedure for intravenous urography. (C15)
11. Identify and describe the procedure, including patient position, anatomical structure position, and alignment of the central ray, image receptor and anatomical structure, for each radiographic projection of the

- a. Urinary system. (C15,18)
  - b. Renal parenchyma. (C15,18)
  - c. Pelvicaliceal system and ureters. (C15,18)
  - d. Urinary bladder. (C15,18)
  - e. Male cystourethrography. (C15,18)
  - f. Female cystourethrography. (C15,18)
12. Identify and describe the structures demonstrated best in each lower extremity projection covered in class including the use of illustrations and radiographic images.
  13. Identify and describe the evaluation criteria for each lower extremity projection covered in class. (F9,10;C16)

TEXTBOOK READING ASSIGNMENT: **Merrill's Atlas, Vol. II**, Chapter 18

## 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 Spring 2019 RADR 2301.001 course syllabus. I have read and understand the contents of this syllabus.

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Printed Name

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Signature

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Date