TENTATIVE—SUBJECT TO CHANGE

RADT 1200 Principles of Radiation Biology and Protection
COURSE SYLLABUS
Summer Semester 2023 (202316)

COURSE INFORMATION

Credit Hours/Minutes: 2/1500
Campus/Class Location: Vidalia/Gillis Building/ Room #743
Class Meets: 9 weeks / Tuesdays/8:30 AM – 11:50 AM
Course Reference Number (CRN): 60084
Preferred Method of Contact: Email or Microsoft TEAMS

INSTRUCTOR CONTACT INFORMATION

Instructor Name: Tara Powell
Email Address: Tara Powell (tpowell@southeasterntech.edu)
Campus/Office Location: Vidalia / Room 714
Office Hours: Wednesdays 8:00 AM – 12:00/12:30 – 4:30 PM
Phone: 912-538-3152
Fax Number: 912-538-3106
Tutoring Hours (if applicable): available upon request

SOUTHEASTERN TECHNICAL COLLEGE'S (STC) CATALOG AND HANDBOOK

Students are responsible for all policies and procedures and all other information included in Southeastern Technical College's Catalog and Handbook (https://catalog.southeasterntech.edu/).

REQUIRED TEXT

Sherer, M., Visconti, P., Ritenour, E., & Haynes, K., (2022) Radiation Protection in Medical Radiography (9th edition).

Rad Tech Boot Camp, Clover Learning. Online academic license

REQUIRED SUPPLIES & SOFTWARE

Pen, pencil, highlighter, notebook, paper, computer access, earphones (for Rad Tech Boot Camp Unit Videos), calculator

Dosimeter fees are due as outlined in the Rad Tech Orientation and Radiologic Technology Handbook. If fees are not paid by due date, the student will not be allowed to perform course laboratory. Laboratories missed will not be made up.

Laptop computers are REQUIRED with the following suggested specification:
Processor i5 or i7

Memory 8GB or higher
Hard drive 250GB or larger
DVD Drive either internal or external
Webcam with microphone
Internet speed of 5 Mbps is required (10 Mbps or more is recommended) Test your internet speed using speed test (http://www.speedtest.net/)
MOBILE HOTSPOTS ARE NOT ALLOWED

Note: Although students can use their smart phones and tablets to access their online course(s), exams, discussions, assignments, and other graded activities should be performed on a personal computer. Neither Blackboard nor Georgia Virtual Technical Connection (GVTC) provide technical support for issues relating to the use of a smart phone or tablet so students are advised to not rely on these devices to take an online course.

Students should not share login credentials with others and should change passwords periodically to maintain security.

COURSE DESCRIPTION

Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed.

MAJOR COURSE COMPETENCIES

Major course competencies include radiation detection and measurement; patient protection; personnel protection; absorbed dose equivalencies; agencies and regulations; introduction to radiation biology; cell anatomy; radiation/cell interaction; and the effects of radiation.

PREREQUISITE(S)

Program admission

COURSE OUTLINE

	Learning Outcomes		
Order	Description	Learning Domain	Level of Learning
1.0	**Radiation Detection and Measurement**		
1 .1	Define terms used to measure ionizing radiation such as rem, roentgen, rad, C/kg, Sievert, and gray.	Cognitive	Knowledge
1.2	Distinguish between units of measure for ionizing radiation.	Cognitive	Analysis
1.3	Discuss personnel monitoring devices in terms of types, purposes, characteristics, advantages, and disadvantages.	Cognitive	Comprehension
1.4	List types of ionization chambers.	Cognitive	Knowledge
1.5	Describe the theory of operation for ionization chambers.	Cognitive	Comprehension
1.6	List types and sources of natural radiation and manmade radiation.	Cognitive	Knowledge
2.0	**Patient Protection**		
2.1	Explain the relationship of beam limiting devices to patient radiation protection.	Cognitive	Comprehension
2.2	Discuss added and inherent filtration in terms of the effect on patient dosage.	Cognitive	Comprehension

	Learning Outcomes		
2.3	Explain the purpose and importance of patient shielding.	Cognitive	Comprehension
2.4	Given a list of patients shielding devices and radiographic procedures, correlate the method of shielding to the radiographic procedure.	Cognitive	Application
2.5	Explain the relationship of exposure factors to patient dosage.	Cognitive	Comprehension
2.6	Given various radiographic procedures, identify how to use different IRs that will result in an optimum diagnostic image with the minimum radiation exposure to the patient.	Cognitive	Application
2.7	Discuss methods to avoid repeat radiographs.	Cognitive	Comprehension
2.8	Explain how to reduce patient dose when performing stationary or mobile fluoroscopy, and mobile radiography.	Cognitive	Comprehension
2.9	Describe DAP and radiographic dose documentation	Cognitive	Knowledge
3.0	**Personnel Protection**		
3.1	Explain the use of primary and secondary radiation barriers.	Cognitive	Comprehension
3.2	Discuss protection devices influencing room construction and design.	Cognitive	Comprehension
3.3	Clarify controlled areas from uncontrolled areas.	Cognitive	Analysis
3.4	Explain how radiographic equipment/techniques are used to reduce personnel exposure during radiographic, fluoroscopic, mobile, and surgical procedures.	Cognitive	Comprehension
3.5	Explain how personnel protective devices are used to reduce personnel exposure during radiographic, fluoroscopic, mobile, and surgical procedures.	Cognitive	Comprehension
3.6	Explain how patient immobilization devices are used to reduce personnel exposure during radiographic, fluoroscopic, mobile, and surgical procedures.	Cognitive	Comprehension
3.7	Discuss handling and disposal of radioactive material.	Cognitive	Knowledge
4.0	**Absorbed Dose Equivalencies**		
4.1	Define effective dose equivalent.	Cognitive	Knowledge
4.2	Determine dose equivalent in terms of SI and traditional units when given the quality factor and absorbed dose for different ionizing radiations.	Cognitive	Application
4.3	Discuss current National Council on Radiation Protection and Measurements recommendations for occupational and general public	Cognitive	Comprehension
4.4	Describe dose limits related to the declared pregnant radiographer.	Cognitive	Comprehension
5.0	**Agencies and Regulations**		
5.1	Identify federal and state regulatory agencies.	Cognitive	Knowledge
5.2	Discuss historical perspectives relating to radiation protection.	Cognitive	Comprehension
5.3	Explain two purposes of Public Law 97-35. (Patient Consumer Radiation Health and Safety Act of 1981)	Cognitive	Comprehension
5.4	Discuss state regulations regarding patient and personnel protection.	Cognitive	Comprehension

	Learning Outcomes		
5.5	Identify components of 10 CFR part 20 related to personnel monitoring and dose limits.	Cognitive	Knowledge
5.6	Describe the "ALARA" concept in regard to personnel and patient protection.	Cognitive	Comprehension
5.7	Describe radiographer radiation protection responsibilities as they pertain to patients, personnel, and the public.	Cognitive	Comprehension
6.0	**Introduction to Radiation Biology**		
6.1	Discuss historical evidence of the effects of radiation.	Cognitive	Comprehension
6.2	Describe concepts relating to the interaction of radiation with matter.	Cognitive	Comprehension
6.3	Discuss the information concerning the human body as it relates to atomic structure.	Cognitive	Comprehension
7.0	**Cell Anatomy**		
7.1	Review the structures involved in cellular anatomy.	Cognitive	Comprehension
7.2	Describe the importance of the macromolecules in terms of cellular function.	Cognitive	Comprehension
8.0	**Radiation/Cell Interaction**		
8.1	Define radiation/cell interaction.	Cognitive	Knowledge
8.2	Discuss the effects of radiation on cells related to direct and indirect effect.	Cognitive	Comprehension
8.3	Delineate the four-basic radiation dose-response curves.	Cognitive	Analysis
8.4	Discuss the cellular factors that affect the radio sensitivity of each cell.	Cognitive	Comprehension
8.5	Identify physical characteristics of radiation that impact cell response.	Cognitive	Knowledge
8.6	Differentiate between radio protectors and radio sensitizers.	Cognitive	Analysis
9.0	**Effects of Radiation**		
9.1	Explain the terms early and late effects of radiation.	Cognitive	Comprehension
9.2	Describe acute exposure in terms of somatic and genetic effects.	Cognitive	Comprehension
9.3	Differentiate whole body responses and local responses to acute exposure.	Cognitive	Analysis
9.4	Describe chronic exposure in terms of somatic and genetic effects.	Cognitive	Comprehension
9.5	Differentiate whole body responses and local responses to chronic exposure	Cognitive	Analysis
9.6	Distinguish between stochastic and deterministic effects (early and late tissue reactions) of ionizing radiation.	Cognitive	Analysis

GENERAL EDUCATION CORE COMPETENCIES

Southeastern Technical College has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS

Prior to the discussion of each chapter in class, the student is expected to complete the following:

1. Read the assigned chapter.
2. Know the answers to the review questions at the end of each chapter.
3. Know the definitions of the key terms listed at the beginning of each chapter.
4. Complete all Rad Tech Boot Camp activities for assigned chapter.

The course is comprised of lectures of the course information, Rad Tech Boot Camp online activities, and Chapter exams. Rad Tech Boot Camp Core and Rad Math Boot Camp online activities will be given to assist in reviewing course materials. Students are expected to perform any additional preparation for tests on their own. Rad Tech Boot Camp online activities are due when the corresponding chapter exam is given. No study guides will be given, and no grades will be dropped in this course.

The Rad Tech Boot Camp and Rad Math Boot Camp will be the students "ticket to test". All Rad Tech Boot Camp and Rad Math Boot Camp assignments must be completed with an 80% or higher by each Sunday evening by midnight before taking the test on the material the following Tuesday. If the student does not complete the assignments prior to taking a test the student will not be eligible to take the test and will be given a zero for the corresponding chapter exam. A Chapter(s) test average of 70% or above is required to take the final exam.

No assignment opportunities will be given for extra credit. Any chapter(s) test/exam grade will be entered as is to the nearest 10^{th}. No scores will be rounded (up or down). *For example: the exam has 60 questions, and each question will be worth 1.66 pts.* The student correctly answers 52 questions out of 60 total questions. 52 correct answers x 1.66 = 86.32. The grade will be recorded as 86.3. This rule applies to every grade issued during the semester. All final averages will be recorded as is (i.e., a 69.9 is a 69.9).

A power point presentation will be required for this course to assess the students' verbal communication abilities. The power point presentation requirements will be assigned in Black Board. Power Point presentation expectations and assignments are attached at the end of the lesson schedule of the syllabus.

Students are expected to complete all work required by the instructor.

All Radiologic Technology program students are required to wear scrubs to class/laboratory sessions. Students can select the style and color they prefer to wear to class/laboratory. A scrub top with coordinating scrub pants or an STC T-shirt (must be purchased from the STC Bookstore) with scrub pants can be worn. Students can wear the clinical requirement scrubs to class/laboratory if preferred.

TESTING POLICY

Tests/exams will be given for chapter(s) assigned and will be timed allowing 1.5 minute per question. In addition, quizzes are subject to be given on any given day over any assigned material (i.e. reading, worksheets, Rad Tech Boot Camp, etc.). Rad Tech Boot Camp activities are outlined in the course lesson schedule and are the students' ticket to take chapter tests when assigned. Any quizzes missed due to student absence will not be made up. A Chapter(s) test average of 70% or above is required to take the final exam.

No assignment opportunities will be given for extra credit. Any chapter(s) test/exam grade will be entered as is to the nearest 10^{th}. No scores will be rounded (up or down). *For example: exam has 60 questions, and each question will be worth 1.66 pts.* The student correctly answers 52 questions out of 60 total questions. 52 correct answers x 1.66 = 86.32. The grade will be recorded as 86.3. This rule applies to every grade issued during the semester. All final averages will be recorded as is (i.e., a 69.9 is a 69.9).

Prior to beginning any test, all students are required to place all textbooks and personal property underneath

the desk. Students may be separated in different classrooms, assigned different seats, and/or provided desk dividers during testing as directed by the instructor. Talking is not allowed once the test/exam begins. Once the test/exam begins, students will not be allowed to exit the classroom until the exam is completed and/or turned into the instructor.

Smart watches, cell phones, or any other electronic devices will not be allowed during exams. Students found with their cell phone or any other personal communication device during the exam will be considered cheating and given a zero for the test/exam.

Once a student completes their exam, they will present the exam paper to the instructor and leave the room quietly. Once the student leaves the room, they will not be permitted to reenter the room until all students are finished with the exam. This will prevent other students from being distracted while testing.

Testing for the course is scheduled to be done on-campus, in-person, but may be moved to an online format as needed.

FINAL EXAM: A Chapter(s) test average of 70% or above is required to take the final exam. A final exam will be given to students and will be a 50-question comprehensive exam.

MAKEUP POLICY

(Tests, quizzes, homework, Rad Tech Boot Camp assignments, laboratories):
A grade of zero will be assigned for any missed assignment regardless of the reason. No quizzes or online assignments will be made up. No late homework/online assignments will be accepted.

CELL PHONE POLICY

Cell phones are not to be utilized in the classroom or laboratory unless being used as an academic tool during classroom activities that are approved by the instructor. Students utilizing their cellphone for non-academic purposes during class or laboratory (texting, talking on or, emailing, etc.), will receive a zero on their next chapter test grade. In the event of an emergency, such as a sick family member or sick child, calls should be directed to the front desk at 912-538-3117 where a message can be left.

ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus.

Instructors have the right to give unannounced quizzes/assignments. Students who miss an unannounced quiz or assignment will receive a grade of 0. Students who stop attending class, but do not formally withdraw, may receive a grade of “F” (Failing 0-59) and face financial aid repercussions in upcoming semesters.

Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course a student must attend at least 90% of the scheduled instructional time. All work missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time (90%) may be dropped from the course as stated below in the Withdrawal Procedure.

Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before

the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course.

For this class, which meets 1 day a week for 9 weeks, the maximum number of days a student may miss is 1 day during the semester.

STUDENTS WITH DISABILITIES

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact the appropriate campus coordinator to request services.

Swainsboro Campus: Emily Jarrell (ejarrell@southeasterntech.edu), 478-289-2259, Building 1, Room 1210.
Vidalia Campus: Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165.

SPECIFIC ABSENCES

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

PREGNANCY

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please make arrangements with the appropriate campus coordinator.

Swainsboro Campus: Emily Jarrell (ejarrell@southeasterntech.edu), 478-289-2259, Building 1, Room 1210.
Vidalia Campus: Helen Thomas (hthomas@southeasterntech.edu), 912-538-3126, Building A, Room 165.

It is strongly encouraged that requests for consideration be made **PRIOR** to delivery and early enough in the pregnancy to ensure that all the required documentation is secured before the absence occurs. Requests made after delivery MAY NOT be accommodated. The coordinator will contact your instructor to discuss accommodations when all required documentation has been received. The instructor will then discuss a plan with you to make up missed assignments.

WITHDRAWAL PROCEDURE

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% point of the term in which student is enrolled (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" (Withdrawn) is assigned for the course(s) when the student completes the withdrawal form.
Students who are dropped from courses due to attendance after drop/add until the 65% point of the semester will receive a "W" for the course.
Important – Student-initiated withdrawals are not allowed after the 65% point. Only instructors can drop students after the 65% point for violating the attendance procedure of the course. Students who are dropped from courses due to attendance after the 65% point will receive either a "WP" (Withdrawn Passing) or "WF" (Withdrawn Failing) for the semester.
Informing your instructor that you will not return to his/her course, does not satisfy the approved withdrawal procedure outlined above.
There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be accessed due to the withdrawal. A grade of "W" will count in attempted hour calculations for the purpose of Financial Aid.

ACADEMIC DISHONESTY POLICY

The Southeastern Technical College Academic Dishonesty Policy states that all forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the Southeastern Technical College Catalog and Handbook.

PROCEDURE FOR ACADEMIC MISCONDUCT

The procedure for dealing with academic misconduct and dishonesty is as follows:

1. **First Offense**
   Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.
2. **Second Offense**
   Student is given a grade of "WF" (Withdrawn Failing) for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.
3. **Third Offense**
   Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION

As set forth in the student catalog, Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

American With Disabilities Act (ADA)/Section 504 - Equity- Title IX (Students) – Office of Civil Rights (OCR) Compliance Officer	**Title VI - Title IX (Employees) – Equal Employment Opportunity Commission (EEOC) Officer**
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1st Street, Vidalia Office 165 Phone: 912-538-3126 Email: Helen Thomas hthomas@southeasterntech.edu	Lanie Jonas, Director of Human Resources Vidalia Campus 3001 East 1st Street, Vidalia Office 138B Phone: 912-538-3230 Email: Lanie Jonas ljonas@southeasterntech.edu

ACCESSIBILITY STATEMENT

Southeastern Technical College is committed to making course content accessible to individuals to comply with the requirements of Section 508 of the Rehabilitation Act of Americans with Disabilities Act (ADA). If you find a problem that prevents access, please contact the course instructor.

GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on Southeastern Technical College's website.

ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the Southeastern Technical College (STC) Website (www.southeasterntech.edu).

TECHNICAL COLLEGE SYSTEM OF GEORGIA (TCSG) GUARANTEE/WARRANTY STATEMENT

The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.

GRADING POLICY

Assessment/Assignment	Percentage
Chapter Exams	50 %
Power Point Presentation	20 %
Final Exam	30 %

GRADING SCALE

Letter Grade	Range
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

RADT 1200 Principles of Radiation Biology and Protection
Summer Semester 2023 Lesson Plan

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 1 May 16	Chapter1 Chapter 2	Review Syllabus & Course Requirements Introduction to Radiation Protection & Radiation: Types, Sources, and Doses Received	Read Chapters 1 & 2 Complete Rad Tech Boot Camp/X-Ray Production and Safety **Radiation Protection** • Cardinal Rule (ALARA) • Shielding Complete all videos, quizzes, and the module assessment before the day of the test.	2,3 c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 2 May 23	Chapter 3 Chapter 4	**Exam** on Chapter 1 & 2 *Introduction to Radiation Protection &* *Radiation: Types, Sources, and Doses Received* Interaction of X-Radiation with Matter Radiation Quantities and Units	Read Chapter 3 & 4 Complete Rad Tech Boot Camp/X-Ray Production and Safety **Radiation Units of Measurement** • Rad Units Overview • Air KERMA & Exposure • Absorbed Dose • Equivalent Dose • Effective Dose ---------- Complete all videos, quizzes, and Module assessment. **X-Ray Interactions with Matter** • Attenuation • Coherent Scatter • Photoelectric Effect • Compton Scatter Complete all videos, quizzes, and the module assessment before the day of the test.	1,4,5 b, c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 3 May 30	Chapter 5 Chapter 6	Exam on Chapter 3 & 4 *Interaction of X-Radiation with Matter Radiation Quantities and Units* by Radiation Monitoring Overview of Cell Biology	Read Chapters 5 & 6 Complete Rad Tech Boot Camp/X-Ray Production and Safety **Radiation Detection Devices** • Radiation Detection overview • Ionization Chambers • Scintillation Detectors • Semiconductor Detectors • Occupational Dosimetry • TLD & OSL Dosimetry Complete all videos, quizzes, and the module assessment before the day of the test.	7 c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 4 June 6	Chapter 7 Chapter 8	**Exam** - **Chapter 5 & 6**- *Radiation Monitoring & Overview of Cell Biology* Molecular and Cellular Radiation Biology Early Tissue Reactions and Their Effects on Organ Systems	Read Chapter 7 & 8 Complete Rad Tech Boot Camp/X-Ray Production and Safety **Radiosensitivity** • Radiosensitivity Introduction • Radiosensitivity (Radiation type) • Radiosensitivity (Oxygenation) • Radiosensitivity (Tissue type) Complete all videos, quizzes, and the module assessment before the day of the test. --- Complete Rad Tech Boot Camp **Radiation Biology** • Stochastic vs. Deterministic • Direct vs. indirect effect • Long-term vs. short-term • Somatic & Genetic effect • Acute Radiation Syndrome • Genetic Effects of Radiation • Embryonic & Fetal effects • Carcinogenesis Complete all videos, quizzes, and the module assessment before the day of the test.	6,8 c

Date/Week	Chapter/Lesson	Content	Assignments & Tests Due Dates	Competency Area
WEEK 5 June 13	Chapter 9	Exam Chapter 7 & 8 -*Molecular and Cellular Radiation Biology Early Tissue Reactions and Their Effects on Organ Systems* Stochastic Effects and Late Tissue Reactions of Radiation in Organ Systems	Read Chapter 9	9 c
WEEK 6 June 20	Chapter 10	Chapter 9 Exam - *Stochastic Effects and Late Tissue Reactions of Radiation in Organ Systems* Dose Limits for Exposure to Ionizing Radiation	Read Chapter 10	1 C
WEEK 7 June 27	Chapter 11	Chapter 10 Exam - *Dose Limits for Exposure to Ionizing Radiation* Equipment Design for Radiation Protection	Read Chapter 11	2 c
WEEK 8 July 11	Chapter 12	Chapter 11 Exam - *Equipment Design for Radiation Protection* Management of Patient Radiation Dose During Diagnostic X-Ray Procedures	Read Chapter 12	3 c
WEEK 9 July 18	Chapter 15	Chapter 12 Exam - *Management of Patient Radiation Dose During Diagnostic X-Ray Procedures* Management of Imaging Personnel Radiation Dose During Diagnostic X-Ray Procedures	Read Chapter 15	3 a, c
WEEK 10 July 25		Chapter 15 Exam - *Management of Imaging Personnel Radiation Dose During Diagnostic X-Ray Procedures* -Assigned Power Point presentations after exam	Review all chapters covered for final exam.	
Final Exam July 27	Chapters 1,2,3,4,5, 6,7,8,9,10,11,12, and 15	Final exam @ 1:00PM		1-9 a,b,c

COMPETENCY AREAS:

1. Radiation detection and measurement
2. Patient Protection
3. Personnel Protection
4. Absorbed dose equivalencies.
5. Agencies and Regulations
6. Introduction to radiation biology
7. Cell Anatomy
8. Radiation/Cell Interaction
9. Effects of Radiation

GENERAL CORE EDUCATIONAL COMPETENCIES:

a) The ability to utilize standard written English.
b) The ability to solve practical mathematical problems.
c) The ability to read, analyze, and interpret information.

Power Point Presentation Expectations

Power Point Presentation should be well organized with an overview of the assigned Radiation event, early and late effects of radiation exposure to the population affected, and any worldwide effects of the incident. The power point presentation is to be recorded by utilizing Photo Story, Movie Maker, iMovie, Prezi, etc.

Research your radiation event and know your topic as if you are teaching the class about this event. Impress me by your knowledge of the subject you are discussing. Discuss how this radiation event has given useful data and insight into radiation exposure.

Power Point Etiquette

When working with PowerPoint you must remember that the goal is to deliver information clearly and concisely. Nothing that distracts from those goals is acceptable. Try limiting yourself to

- Only 1 background (theme)
- No more than 2 fonts
- No more than 2 types of animations
- Avoid too many sounds with the animation.

Other things of importance:

- Avoid wordiness (no more than 50 words per page—25 is better)
- Avoid putting more than seven bulleted points on a slide.
- An image on every slide
- Organization is the key. You want there to be an easy-to-follow structure to your presentation.
- References of where you got your information should be on the last slide of the presentation.

Student Group	**Power Point presentation topic**
Clarence & Ladatra	Chernobyl
Alaina & Penny	Hiroshima & Nagasaki
Naturi & Megan	Marshall Islands
Salvador & Abbi	Watch Dial Girls

Southeastern Technical College
Radiologic Technology Degree Program

I _____ have read and understand the syllabus for RADT 1200. I have also been given the opportunity to ask questions to clarify any requirements listed on the syllabi. By signing this agreement, I am acknowledging that I fully understand my requirements and grading criteria that I am responsible for in this course. I agree to follow the guidelines and rules listed on the syllabi.

_____
Print Name

_____
Student Signature

_____
Date