



Course Syllabus

**Radiation Biology and Protection
RADR2313**

******Note to Student******

Student Success is our number one priority at Coastal Bend College and we realize that prompt effective communication plays a significant role in achieving that goal. It is vitally important that you have the proper contact information for your instructor. This should include their office phone number, email address, and their office hours. If you have any problems contacting your instructor, or do not receive a prompt response to your inquiries, please contact the program officials or the Dean of Workforce as soon as possible. Their contact information is provided below:

Radiology Program Director: Timothy Skaife: 361.354.2302: skaifet@coastalbend.edu

Radiology Clinical Coordinator: Ludie Tryan: 361.354.2501: ltyran@coastalbend.edu

Dean of Workforce Programs: Julia Garcia: 830.569.4222X1202: jgarcia@coastalbend.edu

Course Description:

Effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure.

Semester Hours Credit:

3 Semester Credit Hours
Spring TTh

Lecture/Lab Hours:

(3-0-0)

Prerequisite:

RADR2205

Textbook(s):

Radiographic Positioning and Related Anatomy, 8th Ed., Bontrager and Lampignano. ISBN # 9780323083881

Radiographic Positioning and Related Anatomy Workbook and Laboratory Manual, 8th Ed., Bontrager and Lampignano. ISBN # 9780323088329

RADIOLOGIC SCIENCE FOR TECHNOLOGISTS, 10th Edition, Stewart C. Bushong ISBN # 9780323081351

Workbook and Laboratory Manual Radiologic Science for Technologists, 10th Edition, Stewart C. Bushong ISBN # 9780323081375

Student Learning Outcomes:

1. Utilize communication skills to describe the biophysical mechanisms of radiation damage on humans
2. Utilize empirical and quantitative skills to indicate typical dose ranges for routine radiographic procedures



3. Utilize communication skills to describe basic methods and instruments for radiation monitoring, detection, and measurement
4. Utilize personal responsibility skills to implement radiation protection practices.

Evaluation Methods:

Tests and Attendance

Student Learning Outcomes Assessment:

SLO	Assessment Method	Target
Utilize communication skills to describe the biophysical mechanisms of radiation damage on humans	Assessment for this SLO will be using the chapter 29 and 30 examination, the first examination	90% of the students will score 75% or better on the examination
Utilize empirical and quantitative skills to indicate typical dose ranges for routine radiographic procedures	Assessment of this SLO will be conducted using the "Dosage Chart" each student will build during the first month of the course	90% of the students will score "Acceptable" on their "Dosage Charts"
Utilize communication skills to describe basic methods and instruments for radiation monitoring, detection, and measurement	Assessment of this SLO will be according to the chapter 36 examination given at midterm	90% of the students will score 75% or better on the examination
Utilize social responsibility skills to implement radiation protection practices	Assessment of this SLO will be conducted using the Professional Performance Evaluation form in the area of "Professionalism" and "Accountability" for the first biweekly three evaluation periods	90% of the students will score "Acceptable" on the evaluation form
Utilize personal responsibility skills to implement radiation protection practices	Assessment of this SLO will be conducted using the Professional Performance Evaluation form in the area of "Professionalism" and "Accountability" for the first biweekly three evaluation periods	90% of the students will score "Acceptable" on the evaluation form

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services, programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g).

See at: [GL \(Legal\)](#)

Special Needs Services: Students with special needs, including physical and learning disabilities, who wish to request accommodations in this course should contact the Student Development Office as soon as possible to make arrangements; this should occur no later than the second week of class or as soon as the student has the documentation on the disability and requested accommodation per a certified medical or psychological professional. In accordance with



federal law, a student requesting accommodations must provide documentation of disability to the Student Development Advisor.

For more information, contact: in Alice at sdalice@coastalbend.edu; Beeville at sdbeeville@coastalbend.edu; Kingsville at sdkingsville@coastalbend.edu; and Pleasanton at sdpleasanton@coastalbend.edu.

Academic Dishonesty: Each student is charged with notice and knowledge of the contents and provisions of Coastal Bend College's rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Coastal Bend College Policies FLB (Local) and FM (Local). Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion.

See at: [FLB \(Local\)](#) and [FM \(Local\)](#).

See the [Student Handbook](#) for further explanation of Scholastic Dishonesty.

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Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

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Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

NOTE: The College website (www.coastalbend.edu) serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.