Radiobiology

RADS - 2060 301

Course Student Learning Outcomes

- Radiobiology History: discuss the history of radiobiology, identify pioneers in the field of radiobiology and their contributions to research, define terms related to radiation measurement, identify regulations involved with radiobiology.
- Cellular Anatomy and Physiology: indicate the parts of the cell, identify organic compounds and their functions, identify inorganic compounds and their functions, explain mitosis.
- Cellular Effect of Radiation: examine the physical and biologic factors affecting cell radiosensitivity, inspect the direct and indirect effects of radiation, evaluate the radiolysis of water, explain the irradiation of macromolecules, analyze the types of dose-response relationships, discuss the target theory, explain cell survival curves.
- Effects of Initial Exposure to Radiation: discuss the hematologic, gastrointestinal, and central nervous system syndromes, describe local tissue damage to the skin, eyes, and gonads, explain hematologic and cytogenetic effects.
- Effects of Long-term Exposure to Radiation: discuss epidemiology, explain risk estimation models, examine radiation-induced malignancies, identify life-span shortening, discuss genetic damage, explain irradiation of the fetus, analyze stochastic and nonstochastic effects, describe and analyze radiation disaster videos.

Engagement Plan

Example language:

- I will respond to email within 24 hours. I will offer feedback on major assignments within one week. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

Brief Description of Assignments/Exams

Required assignemtns consists of 5 exams, each covering multiple chapters and concepts. The final for this course in not comprehensive. Also required are 2 worksheets with notes and dicussion on the Back to Chernobyl video and Fukushima video shown in class.

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0
	quizlet link for chapter 1	Discussion	0
9/2/25	Chapter 1 Test	Quiz	27
9/25/25	Chapter 2 Test	Quiz	50
10/23/25	Chapter 3 Test	Quiz	48
10/28/25	Back to Chernobyl Video Worksheet	Assignment	18
11/4/25	Fukushima Video Worksheets	Assignment	19
11/27/25	Chapter 4 Test	Quiz	37

Due Date	Assignment Name	Assignment Type	Points
12/17/25	Chapter Test 5	Quiz	33

Grading Scale

Course Grading:

Chernobyl Heart Video Worksheet 5%

Back to Chernobyl 5%

Fukushima Nuclear Accident Documentaries 5%

White Light, Rain 5%

5 Chapter Tests at 16% each 80%

Grading:

95-100 A 75-77 C

90-94 A- 71-74 C-

87-89 B+ 67-70 D+

83-86 B 64-66 D

80-82 B- Below 64 E

78-79 C+

Late Assignment Policy

Timely submission of assignments is essential for success in this course. The following penalties will apply to late submissions:

- 1 day late: 25% deduction
- 2 days late: 50% deduction
- 3 days late: 75% deduction
- More than 3 days late: Not accepted

Assignments must be submitted through the designated platform by the stated deadline. If you anticipate a delay due to extenuating circumstances, please contact the instructor before the due date to discuss possible accommodations. Exceptions may be granted at the instructor's discretion with appropriate documentation

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the Institutional Syllabus page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the Institutional Syllabus page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the Institutional Syllabus page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

SLCC Student Academic Calendar