

**Bergen Community College
Division of Health Professions
Department of Radiography**

Course Syllabus

RAD 181 – Radiography I

Basic Information About Course

Course Typically Offered: Fall
Semester and Year: Fall, Year 1
Course and Section Number: RAD 181-001,-002,-003,-004

Course Description

This course introduces the study of radiography. The theory and application of positioning of the chest, abdomen, and upper limb will be explored. Basic principles of radiation protection and radiographic exposure and medical terminology will be reinforced in class and in the laboratory.

Credits – 4 CR, Lecture [2.00], Laboratory [6.00]
Prerequisites - Admission into program

Co Requisites - RAD 180 Introduction to Radiography
 RAD 182 Radiography Practicum I
 BIO 109 Anatomy and Physiology I

Student Learning Objectives: As a result of meeting the requirements in this course, students will be able to:

1. Describe and explain the importance of a radiographer as part of a healthcare team.
2. Identify, explain, and discuss various positioning standards including anatomy and physiology.
3. Perform basic radiographic maneuvers including equipment set-up, patient transfer, and patient transport.
4. Educate a patient before a procedure on the risks and benefits of radiographic imaging.
5. Produce, evaluate, and discuss diagnostic medical images that are provided to physicians for diagnosis.

Means of Assessment

Students in this course will:

1. Complete two tests in addition to a midterm and final examination in class.
2. Demonstrate their understanding of material through discussion.
3. Participate in laboratory exercises that reinforce their knowledge of anatomy and positioning.

Course Content

Taken during the first semester, Radiography I is an introduction to radiographic positioning. Students will learn about patient care movement, patient positioning, equipment positioning, and communication. Students will identify common positioning landmarks and how to apply them for image creation. The student will be able to identify anatomy, common pathologies, and common positioning errors. Associated medical terminology and radiation safety practices are integrated throughout lecture and laboratory exercises.

Course Texts and/or Other Study Materials

Lampignano, John & Kendrick, Leslie. *Bontrager's Textbook of Radiographic Positioning and Related Anatomy 11th Edition*. Elsevier, 2025. ISBN 9780323936132

Lampignano, John & Kendrick, Leslie. *Workbook for Bontrager's Textbook of Radiographic Positioning and Related Anatomy 11th Edition*. Elsevier, 2025. ISBN 9780323936156

Lampignano, John & Kendrick, Leslie. *Bontrager's Handbook of Radiographic Positioning and Related Anatomy 11th Edition*. Elsevier, 2025. ISBN 9780323937467

Research, Writing, and/or Examination Requirement(s)

Quizzes, Short Writing Assignments

Students may be given short writing assignments or quizzes to complete. Timelines for completion will be determined by the course instructor.

Midterm and Final

The midterm and final will be objective, computerized tests that demonstrate the student's ability to identify and apply course material. Students will be expected to evaluate various scenarios and determine the appropriate response.

Grading Policy

Recommended Grade Structure

Description	Percentage
Test 1	20%
Midterm Exam (Test 2)	30%
Test 3	20%
Final Exam (Test 4)	30%

The Radiography program grading scale is outlined in the program handbook available here <https://bergen.edu/radiography/more-info/>

Recommended Policy for Late Assignments:

To be determined by the instructor.

Attendance Policy

BCC Attendance Policy:

All students are expected to attend every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

Attendance Policy for this Course.

To be determined by the instructor.

Other College, Divisional, and/or Departmental Policy Statements

Accommodations for Disabilities:

Bergen Community College aims to create inclusive learning environments where all students have maximum opportunities for success. Any student who feels he or she may need accommodation based on the impact of a disability should contact the Office of Specialized Services at 201-612-5269 or via email at ossinfo@bergen.edu for assistance.

Statement on Mental Health and Wellbeing

Mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. Bergen Community College has licensed Personal Counselors available to assist you with addressing these and other concerns you may be experiencing.

You can learn more about the confidential mental health services available on campus via the Health and Wellness Center at www.bergen.edu/personalcounseling

BCC Statement on Plagiarism: Plagiarism is a form of academic dishonesty and may be a violation of U.S. Copyright laws. Plagiarism is defined as taking someone else's words, opinions, or ideas and claiming them as one's own.

Examples of plagiarism include instances in which a student:

- knowingly represents the work of others as his/her own
- represents previously completed academic work as current
- submits a paper or other academic work for credit which includes words, ideas, data or creative work of others without acknowledging the source
- uses another author's exact words without enclosing them in quotation marks and citing them appropriately
- paraphrases or summarizes another author's words without citing the source appropriately

Instructors may define their own policies regarding plagiarism. See the Academic Regulations section of the college catalog for college policies.

Available Online and On-Campus Resources

Office of Testing and Tutoring at the Meadowlands LYN 202

<https://bergen.edu/tutoring/tutoring-testing-center-at-the-meadowlands/>

The Writing Center and Tutoring Center L-125 <https://bergen.edu/tutoring/writing-center/>

OWL (Online Writing Lab) <http://www.owl.english.perdue>

The English Language Resource Center (ELRC) C-212

<https://bergen.edu/tutoring/english-language-resource-center/>

The Library <https://bergen.edu/library/>

MLA Formatting Guides <https://bergen.libguides.com/citationguides/mla>

Library Research Guides <https://bergen.libguides.com/index.php?b=s>

Free Time Computer Labs <https://bergen.edu/technology-assistance/computer-lab-availability/>

The Center for Student A-118 (Academic, Career, International, and Transfer Counselors)

<https://bergen.edu/center-for-student-success/>

Academic Support <https://bergen.edu/academics/pathway-scholars-program/academic-support/>

Personal Counseling HS-100

<https://bergen.edu/health-wellness-and-personal-counseling/personalcounseling/>

Sample Course Outline

Classroom

Week	Topic/Activity	Assignment/Events
1	Orientation & Radiation Safety Practices	
2	Radiographic Terminology	
3	Introduction to the X Ray Tube & Basic Chest Anatomy and Positioning	
4	Test 1	
5	Alternative Chest Positioning	
6	Abdominal Anatomy and Positioning	
7	Midterm	
8	Anatomy and Positioning of Fingers, Hand, and Wrist	
9	Anatomy and Positioning of Forearm and Elbow	
10	Test 2	
11	Anatomy and Positioning of the Humerus and Shoulder Girdle	
12	Anatomy and Positioning of the Ribcage and Sternum	
13	Technical Factor Manipulation	
14	Final Examination	
15	Course Wrap Up	

Laboratory Activities

Week	Topic/Activity
1	Orientation & Radiation Safety Practices
2	Introduction to Imaging Equipment - Digital Room & Portables
3	Basic Chest Anatomy and Positioning
4	Stretcher & Wheelchair Chest Positioning
5	Alternative Chest Positioning
6	Abdominal Anatomy and Positioning
7	Alternative Abdominal Positioning
8	Anatomy and Positioning of Fingers, Hand, and Wrist
9	Anatomy and Positioning of Forearm and Elbow
10	Alternative Elbow Positioning
11	Anatomy and Positioning of the Humerus and Shoulder Girdle
12	Trauma Humerus and Shoulder Positioning
13	Anatomy and Positioning of the Ribcage and Sternum
14	Technical Factor Manipulation
15	Course Wrap Up

Important dates for the semester can be found at
<https://bergen.edu/events/category/academic-calendar/list/>

Note to Students: This Course Outline and Calendar is tentative and subject to change, depending upon the progress of the class.

Date of Most Recent Syllabus Revision: 04/2024