



# BAKER COLLEGE

## STUDENT LEARNING OUTCOMES

RAD1310 Radiation Safety  
2 Semester Hours

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### Student Learning Outcomes and Enabling Objectives

1. Outline safety methods used to minimize patient exposure.
    - a. Identify effective dose limits for non-occupational radiation exposure.
    - b. Examine the technical factors used to produce quality diagnostic images with the lowest radiation exposure possible.
    - c. Appraise the legal and ethical radiation protection responsibilities of radiation workers.
    - d. Demonstrate how time, distance and shielding can be manipulated to keep radiation exposures to a minimum.
    - e. Describe the radiation protection features of the radiographic and fluoroscopic imaging systems.
  2. Explain the basis for occupational exposure limits.
    - a. Explain how the ALARA concept is utilized as it pertains to occupational exposure.
    - b. Explain the objectives of a radiation protection program and identify dose limits for occupational radiation exposure.
    - c. Identify dose equivalent limits for the embryo and fetus in occupationally exposed women.
    - d. Distinguish between primary and secondary radiation barriers.
  3. Differentiate methods of radiation exposure monitoring.
    - a. Describe the theory and operation of radiation detection devices.
    - b. Define radiation and differentiate applications of radioactivity units of measurement.
    - c. Classify units of radiation measurement.
    - d. Interpret personnel monitoring reports.
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### Big Ideas

#### Big Ideas

- Minimizing Patient Exposure
  - Personnel Protection
  - Exposure Monitoring
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These SLOs are not approved for experiential credit.

Effective: Spring 2025