

PH.D. IN RADIOLOGICAL HEALTH SCIENCES

The Ph.D. in Radiological Health Sciences focuses on the study of radiation and its effects on humans, society, and the environment. Areas of emphasis include cancer research and the role of ionizing radiation in inducing, diagnosing, and treating cancer, radiation biology, health physics, radioecology and radiochemistry. The core curriculum provides a comprehensive background in the radiation and radiological sciences, enhanced by elective offerings in the department. The program is designed to support the development of students into independent scientists and to prepare them for careers in industry, government, and academia.

[Learn more about the Ph.D. in Radiological Health Sciences on the Department of Environmental and Radiological Health Sciences website.](#)

[Students interested in graduate work should refer to the Graduate and Professional Bulletin.](#)

Learning Objectives

Students successfully completing this degree will be able to:

1. Apply knowledge of radiation exposure on health and of related fields, including radiation physics, radiation chemistry, radiation biology and statistics.
2. Apply knowledge of radiation exposure for the purpose of diagnosis and cancer therapy.
3. Formulate a hypothesis, design and conduct experiments, analyze and interpret data.
4. Function as an independent scientist and in multi-disciplinary teams.
5. Identify and solve problems associated with the effects of radiation exposure on health.
6. Adhere to the standards of professional and ethical responsibility of the field.
7. Communicate effectively both orally and in writing.
8. Use the techniques, skills, and modern scientific and technical tools necessary for professional practice of radiation health and exposure.