

# GRADUATE CERTIFICATE IN RADIOLOGICAL AND NUCLEAR SAFETY

Department of Environmental and Radiological Health Sciences (<https://vetmedbiosci.colostate.edu/erhs/>)

This certificate allows opportunities for students and professionals (e.g., employed by the military or in the nuclear sector) who are interested in obtaining basic knowledge of radiological and nuclear safety for specific applications in their workplace to further their education and training in their individual sub-fields without having to complete the formal requirements of a comprehensive graduate degree. Completing the certificate allows the students to have this credential appear on their transcripts, which may serve as confirmation for their employer of their professional training. Also, credits earned in the course of completing the graduate certificate may be applied towards fulfillment of the requirements for a graduate degree at a later date.

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

## Learning Objectives

Upon successful completion, students will be able to:

1. Identify radiological and nuclear sources and their associated hazards.
2. Apply principles of radiological protection to operational tasks related to the survey or handling of radiological or nuclear sources.
3. Interpret radiological measurement data and deduce immediate radiological protection measures.
4. Explain and interpret radiological protection rules and regulations and apply them to specific radiological or nuclear sources.

## Requirements Effective Fall 2019

Additional coursework may be required due to prerequisites.

Code	Title	Credits
ERHS 530	Radiological Physics and Dosimetry I	3
ERHS 561	Radiation Public Health	2
<b>Select 7-8 credits from the following:</b>		<b>7-8</b>
ERHS 515	Non-Ionizing Radiation Safety	
ERHS 531	Nuclear Instruments and Measurements	
ERHS 550	Principles of Radiation Biology <sup>1</sup>	
ERHS 551A	Radiation Biology Principles for Medicine: Principles of Radiation Biology <sup>1</sup>	
ERHS 551B	Radiation Biology Principles for Medicine: Principles of Radiation Oncology <sup>1</sup>	
ERHS 551C	Radiation Biology Principles for Medicine: Principles of Radiation Protection <sup>1</sup>	
ERHS 570	Radioecology	
ERHS 630	Radiological Physics and Dosimetry II	

ERHS 632	Techniques in Radiation Dosimetry
<b>Program Total Credits:</b>	<b>12-13</b>

<sup>1</sup> Credit not allowed for both ERHS 550 and any of the following: ERHS 551A, ERHS 551B or ERHS 551C.

\*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.