

# ENV AND RADIOG HEALTH SCI-CSU (ERHS)

---

**ERHS 5010 - Biological Basis of Public Health (2 Credits)**  
Biological basis of underlying major public health problems, focusing on risk factors, pathogenesis, and pathophysiology, plus a review of the anatomy and physiology of selected major organ systems and associated diseases, clinical terminology, the underlying biological mechanisms and biological impact of disease in public health.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Fall.

**ERHS 5350 - R Programming for Research (3 Credits)**  
In-depth instruction on data collection, data management, programming and visualization using data examples relevant to academic research.  
Grading Basis: Letter Grade  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Spring.

**ERHS 5600 - Health Impact Assessment (2 Credits)**  
Application of a Health Impact Assessment approach to systematically judge the potential health effects of a policy or project and the distribution of those effects within the population.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Fall.

**ERHS 5730 - Design and Conduct of Epidemiologic Research (2 Credits)**  
This course prepares students to design and implement an epidemiologic study from the development of a research question and study design through data analysis and dissemination. Prerequisites: Introductory Epidemiology course or equivalent.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Spring.

**ERHS 5810 - Experimental Course - ERHS (1-5 Credits)**  
Experimental course in environmental and radiological health sciences.  
Grading Basis: Letter Grade  
Repeatable. Max Credits: 5.  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Fall, Spring, Summer.

**ERHS 6380 - Geospatial Analysis for Environmental Health (3 Credits)**  
Introduction to acquisition, organization and analysis of geospatial data relevant to public health. Data sources covered include ground-based air quality and weather sensors, remote sensing (satellite) products, climate and weather model output and data on water quality, traffic and mobility, and housing and socio-demographics.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Fall.

**ERHS 6400 - CSU Advanced Epidemiology (3 Credits)**  
In-depth exploration of advanced epidemiologic methods. Prereq: ERHS 5320.  
Grading Basis: Letter Grade  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Spring.

**ERHS 6580 - Environmental/Occupational Epidemiology (2 Credits)**  
Epidemiologic analyses of effects of exposure to environmental and occupational health hazards. Prereq: ERHS 5320.  
Grading Basis: Letter Grade  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Spring.

**ERHS 6930 - Research Seminar-Epidemiology (1 Credit)**  
Presentation of student research and discussion of publications from scientific literature.  
Grading Basis: Letter Grade  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Fall, Spring.

**ERHS 6950 - Independent Study - Epidemiology (1-5 Credits)**  
Specialized study in epidemiology under supervision of faculty.  
Grading Basis: Letter Grade  
Repeatable. Max Credits: 5.  
A-PUBH1 Graduate students and public health certificate students only.  
Additional Information: Colorado State University.  
Typically Offered: Fall, Spring, Summer.

**ERHS 7320 - Advanced Epidemiological Analysis (2 Credits)**  
Course will complement the student's training in epidemiological methods and statistical regression methods, providing the opportunity to implement their theoretical expertise through designing and conducting advanced epidemiologic research analysis, implemented through a statistical programming language. Prerequisite: Epidemiologic Methods, Advanced Epidemiology, R Programming or SAS and Epidemiologic Data Management, Design and Data Analysis or equivalent courses or experience.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Fall.

**ERHS 7400 - Advanced Epidemiology Methods (3 Credits)**  
Understanding the theoretical basis of currently used epidemiologic methods and also to help acquire an understanding of the process of developing novel approaches. Topics include methods for analysis of the causal effects of time-varying exposures, mediation, instrumental variable analysis, natural experiments and other methods. Prerequisite: Epidemiologic Methods, Advanced Epidemiology, Design and Data Analysis for Researchers I and II or equivalent courses or experience.  
Grading Basis: Letter Grade  
Additional Information: Colorado State University.  
Typically Offered: Fall.