MAJOR IN ENVIRONMENTAL PUBLIC HEALTH

Environmental Health is a branch of public health that studies how biological, chemical, and physical factors in natural and built environments impact human health and disease. Students will learn how to help prevent injuries and disease by managing environmental hazards and promoting healthier air, water, soil, homes, workplaces, and communities. The major is one of only 25 programs nationwide to be fully accredited by the standards of the National Environmental Health Science and Protection Accreditation Council (https://www.nehspac.org/), and the only such program in Colorado.

Why study Environmental Health?

According to the World Health Organization, 24% of all estimated global deaths are related to the environment, including 8 million people who die due to air pollution, 2 million due to waterborne diseases, and 3 million from work-related diseases and accidents annually.

Academics:
Students begin their studies with foundational science courses in biology, physics, general chemistry, organic chemistry, biochemistry, microbiology, physiology, math, and statistics, and then use these basic sciences as tools to solve environmental public health problems. Students are involved in actual and simulated field projects with data gathering and analysis, characterization of environmental public health problems, evaluation of alternative solutions, and presentation of results in written and oral formats. All Environmental Public Health students complete a professional internship for academic credit with a private sector company or public health agency.

Special Opportunities:
A capstone internship which allows students to put their coursework into practice under the guidance of a qualified mentor. A pre-internship seminar course prepares students in the essentials of resume & cover letter writing, interviewing, networking and securing the internship.

Potential Occupations:
Occupations of Environmental Health alumni include, but are not limited to: environmental health specialist, industrial hygienist, toxicologist, epidemiologist, air quality analyst, water quality manager, pollution prevention specialist, hazardous and solid waste specialist, occupational safety specialist, radiation safety officer, disaster assistance team leader, emergency manager, environmental consultant, and health educator. In addition, Environmental Public Health is excellent preparation for entry into medical school, veterinary school and other health-related professional programs as well as masters and PhD programs in a variety of scientific disciplines

Learning Objectives:

Upon successful completion of this major, students will be able to:

1. Effectively communicate the health consequences of actions, behaviors, or environmental degradation to the public, political community, legal experts, or the media.
2. Demonstrate critical thinking and problem solving abilities for environmental issues as an individual and as a member of a problem solving team.
3. Integrate knowledge in social, physical, and biological sciences to evaluate environmental issues, and
4. Apply knowledge of scientific methods to evaluate compliance with environmental health standards and assess risks to workers and the public.

Requirements Effective Fall 2026

Freshman

		AUCC	Credits
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CHEM 113	General Chemistry II		3
CHEM 114	General Chemistry Lab II		1
CO 150	College Composition (GT-CO2)	1A	3
ERHS 220	Introduction to Environmental Public Health	3A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	4
MIP 260	The World of Parasites		3
VMBS 100	Introduction to Biomedical Sciences Major		2
Select a minimum of 3 credits from the following:			3
MATH 118	College Algebra in Context II (GT-MA1)	1B	
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	
MATH 125	Numerical Trigonometry (GT-MA1)	1B	
MATH 126	Analytic Trigonometry (GT-MA1)	1B	

MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	
1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)		1C	3
	Total Credits		**30**
Sophomore			
ERHS 230	Environmental Health Field Methods		3
MIP 300	General Microbiology		3
MIP 302	General Microbiology Laboratory		2
Select one course from the following:			4
BMS 300	Principles of Human Physiology		
BMS 360	Fundamentals of Physiology		
Select one course from the following:			5
PH 121	General Physics I (GT-SC1)	3A	
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	
Select one course from the following:			3
STAT 301	Introduction to Applied Statistical Methods		
STAT 307	Introduction to Biostatistics		
Select one group from the following:			8
Group A			
CHEM 245	Fundamentals of Organic Chemistry		
CHEM 246	Fundamentals of Organic Chemistry Laboratory		
CHEM 338 or ERHS 448	Environmental Chemistry Environmental Contaminants		
Group B			
CHEM 341	Modern Organic Chemistry I		
CHEM 343	Modern Organic Chemistry II		
CHEM 344	Modern Organic Chemistry Laboratory		
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)		3C	3
	Total Credits		**31**
Junior			
BC 351	Principles of Biochemistry		4
ERHS 320	Environmental Health--Water Quality	4A	3
ERHS 332	Principles of Epidemiology		3
ERHS 350	Principles of Occupational Safety and Health		3
ERHS 479	Environmental Health Practice	4C	1
Select one course from the following:			3
CO 300	Writing Arguments (GT-CO3)	2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	
Select one course from the following:			3
FTEC 400	Food Safety		
MIP 334	Food Microbiology		
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B	6
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		3D	3
	Total Credits		**29**
Senior			
ERHS 410	Environmental Health-Air and Waste Management	4B	3
ERHS 430	Human Disease and the Environment		3

ERHS 446	Environmental Toxicology		3
ERHS 450	Introduction to Radiation Biology		3
ERHS 487	Internship-Environmental Health	4C	4
Program Electives[1]			5
Electives[2]			9
	Total Credits		**30**
	Program Total Credits:		**120**

[1] Must be related to major and approved by an ERHS key advisor.

[2] Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).

Major Completion Map

Distinctive Requirements for Degree Program:

TO Declare Major: competitive entry controls required and capped enrollment in place. Please contact Director of Student Success in the CVMBS Student Success Center for more information.

Freshman

Semester 1		**Critical**	**Recommended**	**AUCC**	**Credits**
CHEM 111	General Chemistry I (GT-SC2)	X		3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	X		3A	1
CO 150	College Composition (GT-CO2)	X		1A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	X		3A	4
VMBS 100	Introduction to Biomedical Sciences Major	X			2
	Total Credits				**14**

Semester 2		**Critical**	**Recommended**	**AUCC**	**Credits**
CHEM 113	General Chemistry II	X			3
CHEM 114	General Chemistry Lab II	X			1
ERHS 220	Introduction to Environmental Public Health	X		3A	3
MIP 260	The World of Parasites	X			3
Select a minimum of 3 credits from the following:		X			3
MATH 118	College Algebra in Context II (GT-MA1)			1B	
MATH 124	Logarithmic and Exponential Functions (GT-MA1)			1B	
MATH 125	Numerical Trigonometry (GT-MA1)			1B	
MATH 126	Analytic Trigonometry (GT-MA1)			1B	
MATH 155	Calculus for Biological Scientists I (GT-MA1)			1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)			1B	
1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)				1C	3
A minimum of 3 credits of AUCC 1B must be completed by the end of Semester 2.		X		1B	
	Total Credits				**16**

Sophomore

Semester 3		**Critical**	**Recommended**	**AUCC**	**Credits**
ERHS 230	Environmental Health Field Methods	X			3
Select one course from the following:		X			4
BMS 300	Principles of Human Physiology				
BMS 360	Fundamentals of Physiology				
Select one course from the following:		X			5
PH 121	General Physics I (GT-SC1)			3A	
PH 141	Physics for Scientists and Engineers I (GT-SC1)			3A	
Select one group from the following:		X			3-5
Group A					
CHEM 245	Fundamentals of Organic Chemistry				
CHEM 246	Fundamentals of Organic Chemistry Laboratory				

Group B					
CHEM 341	Modern Organic Chemistry I				
ERHS 220 must be completed by end of Semester 3.		X			
	Total Credits				**15-17**
Semester 4		**Critical**	**Recommended**	**AUCC**	**Credits**
MIP 300	General Microbiology	X			3
MIP 302	General Microbiology Laboratory	X			2
Select one course from the following:		X			3
STAT 301	Introduction to Applied Statistical Methods				
STAT 307	Introduction to Biostatistics				
Select the same Group (A or B) as selected in Semester 3:		X			3-5
Group A					
CHEM 338 or ERHS 448	Environmental Chemistry Environmental Contaminants				
Group B					
CHEM 343	Modern Organic Chemistry II				
CHEM 344	Modern Organic Chemistry Laboratory				
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			X	3C	3
BMS 300 or BMS 360 and ERHS 230 must be completed by the end of Semester 4.		X			
	Total Credits				**14-16**
Junior					
Semester 5		**Critical**	**Recommended**	**AUCC**	**Credits**
ERHS 320	Environmental Health--Water Quality			4A	3
ERHS 350	Principles of Occupational Safety and Health	X			3
Select one course from the following:		X			3
CO 300	Writing Arguments (GT-CO3)			2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)			2	
Select one course from the following:		X			3
FTEC 400	Food Safety				
MIP 334	Food Microbiology				
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			X	3D	3
PH 121 or PH 141 must be completed by the end of Semester 5.		X			
	Total Credits				**15**
Semester 6		**Critical**	**Recommended**	**AUCC**	**Credits**
BC 351	Principles of Biochemistry	X			4
ERHS 332	Principles of Epidemiology	X			3
ERHS 479	Environmental Health Practice	X		4C	1
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	6
BMS 300 or BMS 360 and STAT 301 or STAT 307 must be completed by the end of Semester 6.		X			
	Total Credits				**14**
Senior					
Semester 7		**Critical**	**Recommended**	**AUCC**	**Credits**
ERHS 446	Environmental Toxicology	X			3
ERHS 487	Internship-Environmental Health	X		4C	4
Program Electives (See Major Requirements tab)		X			5
Electives			X		4
	Total Credits				**16**

Semester 8		Critical	Recommended	AUCC	Credits
ERHS 410	Environmental Health-Air and Waste Management	X		4B	3
ERHS 430	Human Disease and the Environment	X			3
ERHS 450	Introduction to Radiation Biology	X			3
Electives		X			5
The benchmark courses for Semester 8 are the remaining courses in the entire program of study.		X			
	Total Credits				**14**
	Program Total Credits:				**120**