

# MAJOR IN BIOMEDICAL SCIENCES, ENVIRONMENTAL PUBLIC HEALTH CONCENTRATION

**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.

## Major Completion Map

### Distinctive Requirements for Degree Program:

#### 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)			1A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	X		3A	4
VMBS 100	Introduction to Biomedical Sciences Major				2
Select 0-1 credits from the following:					0-1
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	

#### Total Credits

14-15

Semester 2		Critical	Recommended	AUCC	Credits
CHEM 113	General Chemistry II	X			3
CHEM 114	General Chemistry Lab II	X			1
ERHS 220	Environmental Health		X		3
MIP 260	The World of Parasites				3
Select 2-4 credits from the following (not previously taken):					2-4
MATH 117	College Algebra in Context I (GT-MA1)			1B	
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	

A minimum of 3 credits of AUCC 1B (Quantitative Reasoning) must be completed by the end of Semester 2.

#### Total Credits

12-14

#### Sophomore

Semester 3		Critical	Recommended	AUCC	Credits
ERHS 230	Environmental Health Field Methods		X		3
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)		X	3A	
PH 141	Physics for Scientists and Engineers I (GT-SC1)			3A	
Select one group from the following:					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			X	
ERHS 220 must be completed by end of Semester 3.					
<b>Total Credits</b>					<b>15-17</b>
<b>Semester 4</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
MIP 300	General Microbiology	X			3
MIP 302	General Microbiology Laboratory				2
Select one course from the following:					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:					3-5
Group A					
CHEM 338 or	Environmental Chemistry				
ERHS 448	Environmental Contaminants				
Group B					
CHEM 343	Modern Organic Chemistry II	X			
CHEM 344	Modern Organic Chemistry Laboratory	X			
Social and Behavioral Sciences ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences</a> )				3C	3
BMS 300 or BMS 360 and ERHS 230 must be completed by the end of Semester 4.					
<b>Total Credits</b>					<b>14-16</b>
<b>Junior</b>					
<b>Semester 5</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
ERHS 320	Environmental Health–Water Quality			4A	3
ERHS 350	Principles of Occupational Safety and Health				3
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				
Historical Perspectives ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives</a> )				3D	3
PH 121 or PH 141 must be completed by the end of Semester 5.					
<b>Total Credits</b>					<b>15</b>
<b>Semester 6</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
BC 351	Principles of Biochemistry				4
ERHS 332	Principles of Epidemiology				3
ERHS 479	Environmental Health Practice	X		4C	1
Arts and Humanities ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities</a> )				3B	6
BMS 300 or BMS 360 and STAT 301 or STAT 307 must be completed by the end of Semester 6.					
<b>Total Credits</b>					<b>14</b>
<b>Senior</b>					
<b>Semester 7</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
ERHS 446	Environmental Toxicology	X			3
ERHS 487	Internship-Environmental Health	X		4C	4
Program Electives (See Major Requirements tab)					5
Electives					3-4
<b>Total Credits</b>					<b>15-16</b>

<b>Semester 8</b>		<b>Critical</b>	<b>Recommended</b>	<b>AUCC</b>	<b>Credits</b>
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
Diversity, Equity, and Inclusion ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion</a> )				1C	3
The benchmark courses for Semester 8 are the remaining courses in the entire program of study.		X			
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<b>Total Credits</b>					<b>17</b>
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<b>Program Total Credits:</b>					<b>120</b>