

# 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. X

Total Credits				15-17
Semester 4		Critical	Recommended AUCC	Credits
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.		X		

Total Credits				14-16
<i>Junior</i>				
Semester 5		Critical	Recommended AUCC	Credits
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.		X		

Total Credits				15
Semester 6		Critical	Recommended AUCC	Credits
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.		X		

Total Credits				14
<i>Senior</i>				
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)				5
Electives				3-4
Total Credits				15-16

<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			
<b>Total Credits</b>					<b>17</b>
<b>Program Total Credits:</b>					<b>120</b>