

**The Major in Environmental Science**  
**Department of Environmental Science and Biology**

**Summary of Requirements**

Student: \_\_\_\_\_ ID#: 800 \_\_\_\_\_ Advisor: \_\_\_\_\_

Entry Date: \_\_\_\_\_ Expected Graduation Date: \_\_\_\_\_

<b>Core Courses (or Transfer Equivalentts)</b>		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
ENV 202 Environmental Science (F,S)	4 cr	_____	_____	_____
ENV 204 Biology of Organisms (S)	4cr	_____	_____	_____
ENV 303 Ecology (F,S)	4 cr	_____	_____	_____
ENV 452 Environmental Laws & Regulations (F)	3 cr	_____	_____	_____
ENV 492 Global Environmental Issues (S)	3 cr	_____	_____	_____
CHM 205 College Chemistry I (F)	4 cr	_____	_____	_____
CHM 206 College Chemistry II (S)	4 cr	_____	_____	_____
CHM 313 Quantitative Chemical Analysis (S)	4 cr	_____	_____	_____
GEL 201 Physical Geology (F)	4 cr	_____	_____	_____
MTH 201 Calculus I (F,S)	4 cr	_____	_____	_____
<b>Total Required</b>	<b>38 cr</b>			

**Offering Codes**

F = Fall                      S = Spring                      Sm = Summer  
 E = Even year      O = Odd year                      Eo = Every other                      Occ = Occasional

**Notes**

1. Transfer students must complete a minimum of 18 credits of 300/400 level courses at Brockport regardless of the number of credits transferred.
2. Total credits required to earn environmental science degree depends on the concentration chosen.
3. This worksheet is intended to assist students and faculty advisors in the Environmental Science major. **It has no official status as a transcript evaluation.**

**Concentration in Aquatic Ecology/Biology**

		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
<b>Required Courses</b>				
<b>Both (5 cr)</b>				
ENV 419 Limnology (F)	3 cr	_____		
ENV 421 Limnology Laboratory (F)	2 cr	_____		
<b>One of (3-4 cr)*</b>				
ENV 423 Biology of Pollution (EoSO)	3 cr	_____		
ENV 436 Water Quality Analysis (S)	4 cr	_____		
ENV 462 Aquatic Toxicology (EoSE)	4 cr	_____		
<b>One of (4 cr)*</b>				
ENV 483 Aquatic Invertebrates (EoSO)	4 cr	_____		
ENV 486 Fish Biology (EoFO)	4 cr	_____		
<b>7-8 credits chosen by advisement from:</b>				
ENV 319 Biological Oceanography (Occ.)	3 cr	_____		
ENV 427 Animal Behavior (EoFE)	3 cr	_____		
ENV 435 Northern Wetlands (EoSE)	3 cr	_____		
ENV 437 Biostatistics (F)	3 cr	_____		
ENV 439 Conservation Biology (EoFO)	3 cr	_____		
ENV 446 Wetland Ecology (F)	4 cr	_____		
ENV 448 Restoration Ecology (EoSO)	3 cr	_____		
ENV 457 Marine Biology-Bahamas (S)	3 cr	_____		
ENV 464 Aquaculture (EoFE)	4 cr	_____		
ENV 476 Animal Ecophysiology (EoFO)	3 cr	_____		
ENV 484 Fisheries Science & Management (EoSE)	3 cr	_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____		
ESC 412 Hydrology (EoFO)	4 cr	_____		
ESC 418 Watershed Sciences (EoFE)	3 cr	_____		
GEL 462 Groundwater (EoSO)	4 cr	_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____		
<b>Total Needed</b>	<b>20 cr</b>			
<b>Co-requisite Course</b>				
CHM 305 Organic Chemistry I (F)	4 cr	_____		

\*Can take additional courses from this group as electives.

**Concentration in Terrestrial Ecology/Biology**

		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
<b>Required Courses (8 cr)</b>				
<b>One of (4 cr)*</b>				
ENV 400 Plant Diversity (EoFE)	4 cr	_____		
ENV 405 Plant Ecology (EoFO)	4 cr	_____		
<b>One of (4 cr)*</b>				
ENV 430 Ornithology (EoSE)	4 cr	_____		
ENV 440 Herpetology (EoSO)	4 cr	_____		
ENV 459 Mammalogy (EoFO)	4 cr	_____		
<b>12 credits chosen by advisement from:</b>				
ENV 406 Wildlife Ecology (EoFE)	4 cr	_____		
ENV 423 Biology of Pollution (EoSO)	3 cr	_____		
ENV 427 Animal Behavior (EoFE)	3 cr	_____		
ENV 437 Biostatistics (F)	3 cr	_____		
ENV 439 Conservation Biology (EoFO)	3 cr	_____		
ENV 444 Terrestrial Ecosystem Ecology (EoSE)	3 cr	_____		
ENV 446 Wetland Ecology (F)	4 cr	_____		
ENV 448 Restoration Ecology (EoSO)	3 cr	_____		
ENV 476 Animal Ecophysiology (EoFO)	3 cr	_____		
ENV 477 Field Biology (EoSmO)	4 cr	_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____		
ESC 313 Environmental Climatology (EoSO)	3 cr	_____		
ESC 431 GIS Applications Earth & Environ. Sci. (S)	3 cr	_____		
ESC 455 Introduction to Soils Science (EoFE)	3 cr	_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____		
<b>Total Needed</b>	<b>20 cr</b>			
<b>Co-requisite Course</b>				
CHM 305 Organic Chemistry I (F)	4 cr	_____		

\*Can take additional courses from this group as electives.

**Combined Concentration in Terrestrial and Aquatic Ecology/Biology**

Required Courses		Requirement Completed		
		<u>Date</u>	<u>Course</u>	<u>School</u>
<b>Both (5 cr)</b>				
ENV 419 Limnology (F)	3 cr	_____	_____	_____
ENV 421 Limnology Laboratory (F)	2 cr	_____	_____	_____
<b>One of (3-4 cr)*</b>				
ENV 423 Biology of Pollution (EoSO)	3 cr	_____	_____	_____
ENV 436 Water Quality Analysis (S)	4 cr	_____	_____	_____
ENV 462 Aquatic Toxicology (EoSE)	4 cr	_____	_____	_____
<b>One of (4 cr)*</b>				
ENV 483 Aquatic Invertebrates (EoSO)	4 cr	_____	_____	_____
ENV 486 Fish Biology (EoFO)	4 cr	_____	_____	_____
<b>One of (4 cr)*</b>				
ENV 400 Plant Diversity (EoFE)	4 cr	_____	_____	_____
ENV 405 Plant Ecology (EoFO)	4 cr	_____	_____	_____
<b>One of (4 cr)*</b>				
ENV 430 Ornithology (EoSE)	4 cr	_____	_____	_____
ENV 440 Herpetology (EoSO)	4 cr	_____	_____	_____
ENV 459 Mammalogy (EoFO)	4 cr	_____	_____	_____
<b>10-11 credits chosen by advisement from:</b>				
ENV 319 Biological Oceanography (Occ.)	3 cr	_____	_____	_____
ENV 406 Wildlife Ecology (EoFE)	4 cr	_____	_____	_____
ENV 427 Animal Behavior (EoFE)	3 cr	_____	_____	_____
ENV 437 Biostatistics (F)	3 cr	_____	_____	_____
ENV 439 Conservation Biology (EoFO)	3 cr	_____	_____	_____
ENV 444 Terrestrial Ecosystem Ecology (EoSE)	3 cr	_____	_____	_____
ENV 446 Wetland Ecology (F)	4 cr	_____	_____	_____
ENV 448 Restoration Ecology (EoSO)	3 cr	_____	_____	_____
ENV 457 Marine Biology-Bahamas (S)	3 cr	_____	_____	_____
ENV 464 Aquaculture (EoFE)	4 cr	_____	_____	_____
ENV 476 Animal Ecophysiology (EoFO)	3 cr	_____	_____	_____
ENV 477 Field Biology (EoSmO)	4 cr	_____	_____	_____
ENV 484 Fisheries Science & Management (EoSE)	3 cr	_____	_____	_____
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____	_____	_____
ESC 313 Environmental Climatology (S)	3 cr	_____	_____	_____

ESC 412 Hydrology (EoFO)	4 cr	_____
ESC 418 Watershed Sciences (EoFE)	3 cr	_____
ESC 431 GIS Applications Earth & Environ. Sci. (S)	3 cr	_____
ESC 455 Introduction to Soils Science (EoFE)	3 cr	_____
GEL 462 Groundwater (EoSO)	4 cr	_____
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____
<b>Total Needed</b>	<b>31 cr</b>	

**Co-requisite Course**

CHM 305 Organic Chemistry I (F)	4 cr	_____
---------------------------------	------	-------

\*Can take additional courses from this group as electives.

**Concentration in Environmental Chemical Analysis**

<b>Required Courses (24 cr)</b>		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
CHM 301 Chemical Safety (F)	1 cr	_____		
CHM 305 Organic Chemistry I (F)	4 cr	_____		
CHM 306 Organic Chemistry II (S)	4 cr	_____		
CHM/GEL 457 Geochemistry (EoSE)	4 cr	_____		
ENV 423 Biology of Pollution (EoSO)	3 cr	_____		
ENV 436 Water Quality Analysis (S)	4 cr	_____		
ENV 462 Aquatic Toxicology (EoSE)	4 cr	_____		
<b>5 or more credits chosen by advisement from:</b>				
ENV 419 Limnology (F)	3 cr	_____		
ENV 421 Limnology Laboratory (F)	2 cr	_____		
ENV 437 Biostatistics (F)	3 cr	_____		
ENV 476 Animal Ecophysiology (EoFO)	3 cr	_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____		
<b>Total Needed</b>	<b>29 cr</b>			

**Concentration in Wetland Ecology**

			<b>Requirement Completed</b>		
			<u>Date</u>	<u>Course</u>	<u>School</u>
<b>Required Courses (18 cr)</b>					
ENV 400 Plant Diversity (EoFE)	4 cr		_____		
ENV 435 Northern Wetlands (EoSE)	3 cr		_____		
ENV 446 Wetland Ecology (F)	4 cr		_____		
ESC 412 Hydrology (EoFO)	4 cr		_____		
ESC 455 Introduction to Soils Science (EoFE)	3 cr		_____		
<b>One of (4 cr)*</b>					
ENV 406 Wildlife Ecology (EoFE)	4 cr		_____		
ENV 483 Aquatic Invertebrates (EoSO)	4 cr		_____		
ENV 486 Fish Biology (EoFO)	4 cr		_____		
<b>6 credits chosen by advisement from:</b>					
ENV 405 Plant Ecology (EoFO)	4 cr		_____		
ENV 419 Limnology (F)	3 cr		_____		
ENV 436 Water Quality Analysis (S)	4 cr		_____		
ENV 437 Biostatistics (F)	3 cr		_____		
ENV 439 Conservation Biology (EoFO)	3 cr		_____		
ENV 440 Herpetology (EoSO)	4 cr		_____		
ENV 448 Restoration Ecology (EoSO)	3 cr		_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr		_____		
ESC 418 Watershed Sciences (EoFE)	3 cr		_____		
ESC 431 Environmental GIS Applications (S)	3 cr		_____		
GEL 462 Groundwater (EoSO)	4 cr		_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr		_____		
<b>Total Needed</b>	<b>28 cr</b>				
<b>Co-requisite Course</b>					
CHM 305 Organic Chemistry I (F)	4 cr		_____		

\*Can take additional courses from this group as electives.

**Concentration in the Earth Sciences**

		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
<b>20 credits chosen by advisement from:</b>				
ESC 313 Environmental Climatology (S)	3 cr	_____		
ESC 314 Climatology Laboratory (S)	1 cr	_____		
ESC 300 Physical Oceanography (EoSO)				
ESC 325 Wetland Systems (F)	3 cr	_____		
ESC 332 Air & Water Pollution (EoSO)	3 cr	_____		
ESC 350 Computational Methods (F,S)	3 cr	_____		
ESC 412 Hydrology (EoFO)	4 cr	_____		
ESC 418 Watershed Sciences (EoFE)	3 cr	_____		
ESC 420 Radar & Satellite Meteorology (EoSE)	3 cr	_____		
ESC 431 GIS Applications Earth & Environ. Sci. (S)	3 cr	_____		
ESC 455 Introduction to Soils Science (EoFE)	3 cr	_____		
ESC 457 Marine Geology-Bahamas (S)	3 cr	_____		
ESC 464 Environmental Internship (F,S,Sm)	1-3 cr	_____		
GEL 415 Geomorphology (EoSO)	4 cr	_____		
GEL 457 Geochemistry (EoSE)	4 cr	_____		
GEL 462 Groundwater (EoSO)	4 cr	_____		
ENV 419 Limnology (F)	3 cr	_____		
ENV 421 Limnology Laboratory (F)	2 cr	_____		
ENV 436 Water Quality Analysis (S)	4 cr	_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____		
<b>Total Needed</b>	<b>20 cr</b>			

**Co-requisite Course**

**One of (4 cr):**

PHS 205 Introduction to Physics I (F)	4 cr	_____
PHS 235 Physics I (F)	4 cr	_____
CHM 305 Organic Chemistry I (F)	4 cr	_____

**Concentration in Earth Sciences Teacher Certification for Environmental Science Majors\***

		<b>Requirement Completed</b>		
		<u>Date</u>	<u>Course</u>	<u>School</u>
<b>Required Courses (14 cr):</b>				
ESC 211 Introduction to Meteorology (semesters)	4 cr	_____		
ESC 222 Introduction to Water (semesters)	4 cr	_____		
ESC 350 Computational Methods (F,S)	3 cr	_____		
ESC 391 Writing in the Earth Sciences (semesters)	1 cr	_____		
ESC 494 Earth Sciences Seminar I (semesters)	1 cr	_____		
ESC 391 Earth Sciences Seminar II (semesters)	1 cr	_____		
<b>One Meteorology (3 cr):</b>				
ESC 313 Environmental Climatology (S)	3 cr	_____		
ESC 332 Air & Water Pollution (semesters)	3 cr	_____		
ESC 420 Radar & Satellite Meteorology (EoSE)	3 cr	_____		
<b>One Water (3-4 cr):</b>				
ESC 300 Physical Oceanography (semesters)	3 cr	_____		
ESC 325 Wetland Systems (F) still offered?	3 cr	_____		
ESC 412 Hydrology (EoFO)	4 cr	_____		
ESC 418 Watershed Sciences (EoFE)	3 cr	_____		
<b>One Geology (4 cr):</b>				
GEL 415 Geomorphology (EoSO)	4 cr	_____		
ESC 455 Introduction to Soils Science (EoFE)	4? cr	_____		
GEL 457 Geochemistry (EoSE)	4 cr	_____		
GEL 462 Groundwater (EoSO)	4 cr	_____		
<b>6-7 credits chosen by advisement from:</b>				
ESC 314 Climatology Laboratory (S)	1 cr	_____		
ESC 431 GIS Applications Earth & Environ. Sci. (S)	3 cr	_____		
ESC 457 Marine Geology-Bahamas (S)	3 cr	_____		
ESC 464 Environmental Internship (F,S,Sm)	1-3 cr	_____		
ENV 419 Limnology (F)	3 cr	_____		
ENV 421 Limnology Laboratory (F)	2 cr	_____		
ENV 436 Water Quality Analysis (S)	4 cr	_____		
ENV 488 Environmental Impact Analysis (Occ.)	4-6 cr	_____		
ENV 498 Collaborative Research (F,S,Sm)	1-3 cr	_____		
<b>Total Needed</b>	<b>34 cr</b>			

**Co-requisite Courses**

**One of (8 cr):**

PHS 205 Introduction to Physics I (F)                      4 cr    \_\_\_\_\_  
and

PHS 210 Introduction to Physics II (S)                      4 cr    \_\_\_\_\_

**OR**

PHS 235 Physics I (F)    4 cr    \_\_\_\_\_  
and

PHS 240 Physics II (S)    4 cr    \_\_\_\_\_

\*Students will complete a double major in Earth Sciences and Environmental Science