

NAME: \_\_\_\_\_

ID: \_\_\_\_\_

## NORTH DAKOTA STATE UNIVERSITY

College of Science &amp; Mathematics

## Biological Sciences with Environmental Science Option

Fall 2012

## GENERAL EDUCATION REQUIREMENTS - 40 Credits Required

## MAJOR REQUIREMENTS - 38 credits

Course	Number	Course Title	Credits	Grade	Course	Number	Course Title	Credits	Grade
<b>First Year Experience (F)</b> 1 credit					<b>Biological Sciences Core Courses (17 credits)</b>				
UNIV	189 <sup>1</sup>	Skills for Academic Success	1		BIOL	150/L	General Biology I & Lab	3/1	
<b>Communication (C)</b> 12 credits					BIOL	151/L	General Biology II & Lab	3/1	
ENGL	110	College Composition I	3		BIOL	459	Evolution	3	
ENGL	120	College Composition II	3		BIOL	491	Capstone Seminar	2	
COMM	110	Fundamentals of Public Speaking	3		BIOL	315/L	Genetics/Lab	3/1	
ENGL	324	Writing in the Sciences	3		<b>Environmental Sciences Additional Core (9 credits)</b>				
<b>Quantitative Reasoning (R)</b> 3 credits					BIOL	364	General Ecology	3	
STAT	330	Introductory Statistics	3		BIOL	480	Ecotoxicology	3	
<b>Science &amp; Technology (S)</b> 10 credits					BOT	314, 372, 380, 431, 450 or 460		3/4	
The 10 credits required in the Science and Technology category will be fulfilled with requirements of the major.					<b>Electives: Choose 12 credits of additional electives from the list below.</b>				
<b>Humanities &amp; Fine Arts (A)</b> (Max of 3 cr in fine arts perform) 6 credits					BIOL	478	Methods in Animal Pathology	3	
			3		BOT	380	Plant Physiology	3	
			3		ZOO	370	Cell Biology	3	
<b>Social &amp; Behavioral Sciences (B)</b> 6 credits					ZOO	380	Vertebrate Histology	3	
			3		ZOO	460	Animal Physiology	3	
			3		ZOO	464	Endocrinology	3	
<b>Wellness (W)</b> 2 credits					ZOO	482	Developmental Biology	3	
			2		BOT	314	Plant Systematics	3	
<b>Cultural Diversity (D)</b>					BOT	372	Structure and Diversity of Plants & Fungi	4	
					ZOO	280	Comparative Chordate Morphology	4	
<b>Global Perspectives (G)</b>					ZOO	360	Animal Behavior	3	
GEOL	105	Physical Geology			ZOO	450	Invertebrate Zoology	4	
<b>COLLEGE REQUIREMENTS for a BS or BA Degree</b>					ZOO	452	Ichthyology	3	
The College of Science & Mathematics requires an additional 6 credits in Humanities or Social Sciences for the BS degree and an additional 12 credits for the BA degree and two years proficiency of a modern foreign language.					ZOO	454	Herpetology	3	
<b>BA Degree Requirements:</b>					ZOO	456	Ornithology	3	
2nd Yr Lang Proficiency					ZOO	458	Mammalogy	3	
HUM or Soc Sci			3		ZOO	472	Fisheries Biology	3	
HUM or Soc Sci			3		BIOL	481	Wetland Science	3	
HUM or Soc Sci			3		BOT	460	Plant Ecology	3	
HUM or Soc Sci			3		ZOO	462	Physiological Ecology	3	
<b>BS Degree Requirements:</b>					ZOO	470	Limnology	4	
HUM or Soc Sci			3		ZOO	474	Fish Management	3	
HUM or Soc Sci			3		ZOO	475	Conservation Biology	3	
<b>PROGRAM NOTES</b>					ZOO	476	Wildlife Ecology & Management	3	
Students transferring in 24 or more credits do not need to take UNIV 189.					ZOO	477	Wildlife & Fisheries Management Tech	3	
Curriculum is continued on page two.					<b>Electives: up to 14 credits to reach 122</b>				
NR = Not Required IP = In Progress T = Transfer Credit									

**UNIVERSITY GRADUATION REQUIREMENTS**
**Related Required Courses (Not counted as part of major credits)**

<b>Residency at NDSU (15 cr. @ NDSU):</b>	<b>36 Credits</b>
<b>Credits at 4-year University:</b>	<b>60 Credits</b>
<b>Courses numbered 300+ (Min. 15 cr @ NDSU):</b>	<b>37 Credits</b>
<b>Total Credits Required:</b>	<b>122 Credits</b>

Chemistry				
CHEM	121/L	General Chemistry I/Lab	3/1	
CHEM	122/L	General Chemistry II/ Lab	3/1	
CHEM	431/L or GEOL 428	Analytical Chemistry I & Lab or Geochemistry	3/2 or 3	

**NOTES/COMMENTS**

Students may not minor in biology or zoology with this major.

ALL COURSES ON THIS CURRICULUM ARE REQUIRED FOR THE MAJOR

Courses taken to fulfill general education, college and major requirements may NOT be taken P/F

Choose One Group:				
Group 1:				
CHEM	240	Survey of Organic Chemistry	3	
CHEM	260	Elements of Biochemistry	4	
Group 2:				
CHEM	341/L	Organic Chemistry I & Lab	3/1	
CHEM	342	Organic Chemistry II	3	
BIOC	460	Found/Biochem/Molecular Biol I	3	
Math				
MATH	146	Applied Calculus I	4	
MATH	147	Applied Calculus II	4	
Physics				
PHYS	211/L	College Physics I & Lab	3/1	
PHYS	212/L	College Physics II & Lab	3/1	