

MONTANA STATE UNIVERSITY - DEPARTMENT OF LAND RESOURCES & ENVIRONMENTAL SCIENCES

Degree Requirements for a B. S. in Environmental Sciences - Environmental Biology Option

2014 - 2015 Catalog

Name: _____ **GID#:** _____ **Date:** _____ **Graduating Semester:** _____

A minimum of 120 credits is required for graduation; at least 42 of these credits must be in courses numbered 300 and above.

ALL DEPARTMENTAL REQUIREMENTS & THEIR PREREQUISITES MUST BE A GRADE OF C- OR BETTER

GRADUATION WORKSHEETS ARE DUE ONE YEAR BEFORE GRADUATION

DEPARTMENTAL REQUIREMENTS: 85-87 Credits

Subject/#	Course Title	Credits	Semester	Year	EXCEPTIONS
Freshman Year					
ENSC 110	Land Resources & Environmental Sciences	3	F		
BIOB 170IN	Principles of Biological Diversity	4	F S (F)		
BIOB 160	Principles of Living Systems	4	F S (S)		
CHMY 141	College Chemistry I	4	F S Su (F)		
CHEM 143	College Chemistry II	4	F S Su (S)		
M 161Q (or higher)	Survey of Calculus	4	F S Su (S)		
WRIT 101W	College Writing I	3	F S Su		
<i>WRIT 101W is waived with an ACT English Score of 28 or higher, an SAT Critical Writing score of 650 or higher, an MUS Writing Assessment of 5.5, or an ACT/SAT essay/writing subscore of 11.</i>					
University Core and Electives	US Seminar recommended	3	F S Su		
Sophomore Year					
ENSC 245	Soils	3	F		
ENSC 260	Evolution for Environmental Scientists	3	S		
GPHY 262 or GPHY 284	Spatial Sci Tech & Apps Intro to GIS Science & Cartography	3 3	S F S (F)		
STAT 216Q (or higher)	Intro to Statistics	3	F S Su (F)		
PHSX 205	College Physics I	4	F S Su (F)		
WRIT 201	College Writing II	3	F S Su (S)		
University Core and Electives		12			
Junior Year					
CHMY 211	Elements of Organic Chemistry	5	F S (F)		
BIOM 360	General Microbiology	5	F S (F)		
BCH 380	Biochemistry	5	F S Su (S)		
ENSC 353	Environmental Biogeochemistry	3	F		
NRSM 240 or BIOE 370	Natural Resource Ecology General Ecology	3 3	F S		
ENSC 468	Ecosystem Biogeochemistry Global Change	3	S		
University Core and Electives		6			
Senior Year					
BIOE 422 or BIOE 455 or BIOM 415	Insect Ecology Plant Ecology Microbial Diversity, Ecology & Evolution	3 3 3	S'od S S'ev		
BIOM 452	Soil & Environmental Microbiology	3	S'od		
NRSM 430 or PSCI 362	Natural Resource Law Natural Resource Policy	3 3	S S		
ENSC 444	Watershed Hydrology	3			
ENSC 464 or ENSC 465	Computational Techniques for Envir Sci Environmental Biophysics I	1 3	S S		
ENSC 499R	LRES Capstone	3	F		
University Core and Electives		12-14			

RESTRICTED ELECTIVES - Choose 18-20 Credits from the following:					
Subject/#	Course Title	Credits	Semester	Year	EXCEPTIONS
AGSC 401	Integrated Pest Management	3	F		
BIOB 375	General Genetics	3	F S Su		
BIOB 420	Evolution	3	S		
BIOE 375	Ecol Responses Climate Change	3	S		
BIOE 405	Behavioral & Evol Ecology	3	S		
BIOE 408	Rocky Mountain Vegetation	2	F		
BIOE 428	Freshwater Ecology	3	F		
BIOM 410	Microbial Genetics	3	S		
BIOM 423	Mycology	3	F'ev		
BIOM 430	Applied & Environmental Microbiology	3	S		
BIOM 450	Microbial Physiology	3	F		
BIOM 455R	Research Methods in Microbiology	4	S		
BIOO 412	Animal Physiology	3	F		
BIOO 415	Ichthyology	3	S		
BIOO 433	Plant Physiology	3	S		
BIOO 470	Ornithology	3	S		
BIOO 475	Mammalogy	3	F		
ECNS 332	Econ of Natural Resources	3	F		
ENSC 407	Environmental Risk Assessment	3	F'od		
ENSC 410R	Biodiversity Methods	3	F		
ENSC 443	Weed Ecology and Manangement	3	F		
ENSC 445	Watershed Analysis	3	S		
ENSC 448	Stream Restoration Ecology	3	F		
ENSC 461	Restoration Ecology	3	F		
GPHY 426	Remote Sensing	3	F		
NRSM 421	Holistic Thought/Mgmt	4	S		
NRSM 453	Habitat Inventory and Analysis	3	S		
WILD 301	Princ of Fish & Wildlife Mgmt	3	S		
WILD 438	Wildlife Habitat Ecology	3	S		

Because some courses are offered alternate years, the proposed scheduling of courses in junior and senior years may need to be modified. Work with your advisor for your individual schedule.

LRES Majors: ENSC 490 Undergrad Research, ENSC 492 Independent Study or ENSC 498 Internship is strongly recommended.

CORE 2.0 REQUIREMENTS - Must be a grade C- or better	Semester	Year	Course
Seminar (US)			
College Writing (W)*			
Quantitative Reasoning (Q)*			
Diversity (D)			
Contemporary Issues in Science (CS)* 2nd IN Course will apply to CS			
Arts (IA or RA)			
Humanities (IH or RH)			
Social Sciences (IS or RS)			
Natural Science (IN or RN)*			
Research & Creative Experience (R, RA, RH, RN or RS)*			

*Satisfied by departmental requirements

Student:	Date:
Advisor:	Date:
Certifying Officer:	Date: