

MONTANA STATE UNIVERSITY - DEPARTMENT OF LAND RESOURCES & ENVIRONMENTAL SCIENCES
Degree Requirements for a B. S. in Environmental Sciences - Environmental Sciences Option

2018 - 2019 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

Subject/#	Course Title	Credits	Semester	Year	EXCEPTIONS
Freshman Year					
ENSC 110	Land Resources & Environmental Sci	3	F		
BIOB 170IN	Principles of Biological Diversity	4	F S (F)		
CHMY 141	College Chemistry I	4	F S Su (F)		
BIOB 160	Principles of Living Systems	4	F S (S)		
CHMY 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		
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.					
US CORE	University Seminar	3	F S Su		
Sophomore Year		Credits	Semester	Year	EXCEPTIONS
ENSC 245IN	Soils	3	F		
GPHY 284	Intro to GIS Science & Cartography	3	F S (F)		
PHSX 205	College Physics I	4	F S Su (F)		
STAT 216 (or higher) or BIOB 318	Intro to Statistics Biometry	3	F S Su (F) F		
ENSC 210	Role of Plants in the Environment	3	S		
ENSC 260	Evolution for Environ Scientists	3	S		
WRIT 201	College Writing II	3	F S Su (S)		
University Core		9			
Junior Year		Credits	Semester	Year	EXCEPTIONS
ENSC 353	Environmental Biogeochemistry	3	F		
NRSM 240 or BIOE 370	Natural Resource Ecology General Ecology	3 3	F F S		
Directed & Free Electives		24			
Senior Year		Credits	Semester	Year	EXCEPTIONS
ENSC 444	Watershed Hydrology	3	F		
ENSC 499R	LRES Capstone	3	F		
ENSC 464 or ENSC 465	Computational Techniques Envir Sci Environmental Biophysics I	1 3	S S		
NRSM 430 or PSCI 362	Natural Resource Law Natural Resource Policy	3	S S		
Directed & Free Electives		18-20			
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

Each student shall work closely with their faculty advisor to plan an integrated set of elective courses appropriate to their academic, professional and personal goals.

DIRECTED ELECTIVES - Choose a minimum of 21 credits of directed electives from the following:					
Subject/#	Course Title	F	S	Year	EXCEPTIONS
AGSC 401	Integrated Pest Management	3			
AGSC 428	Sustainable Cropping Systems		3		
BIOE 375	Ecological Response Climate Change		3		
BIOE 408	Rocky Mountain Vegetation	3			
BIOE 416 (Summer)	Alpine Ecology		3		
BIOE 422 (even years 2020)	Insect Ecology		3		
BIOE 428	Freshwater Ecology	3			
BIOE 455	Plant Ecology		3		
BIOM 415 (even years)	Microbial Diver, Ecology & Evol		3		
BIOM 452	Soil & Environ Microbiology		3		
ENSC 407	Environmental Risk Assessment	3			
ENSC 410R	Biodiver Surv & Monitor Methods	3			
ENSC 443	Weed Ecology & Management	3			
ENSC 445	Watershed Analysis		3		
ENSC 448	Stream Restoration Ecology	3			
ENSC 454	Landscape Pedology	3			
ENSC 460	Soil Remediation		3		
ENSC 461	Restoration Ecology	3			
ENSC 466	Chemical Ecology	3			
ENSC 468	Ecosystem Biogeochemistry		3		
ERTH 307	Prin of Geomorphology	3			
ERTH 432R	Surface Water Resouces		3		
GPHY 357	GPS Fund/Apps in Mapping	3			
GPHY 384	Adv GIS & Spatial Analysis	3	3		
GPHY 426	Remote Sensing		3		
GPHY 429R	Applied Remote Sensing		3		
GPHY 484R	Applied GIS & Spatial Analysis		3		
NRSM 421	Holistic Thought & Management		4		
NRSM 455	Riparian Ecololgy & Management		3		
WILD 438	Wildlife Habitat Ecology		3		

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.

FREE ELECTIVES - Choose 18-20 credits of free electives, 15 of which must be 300/400 level.					
Subject/#	Course Title	Credits	Semester	Year	EXCEPTIONS