MONTANA STATE UNIVERSITY - DEPARTMENT OF LAND RESOURCES & ENVIRONMENTAL SCIENCES

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

2021 - 2022 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

DEPARMENTAL 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 & CHMY 142	College Chemistry I & Lab	4	F S Su (F)		
WRIT 101W	College Writing I	3	F S Su (F)		
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.					
BIOB 160	Principles of Living Systems	4	F S (S)		
CHMY 143 & CHMY 144	College Chemistry II & Lab	4	F S Su (S)		
M 161Q (or higher)	Survey of Calculus	4	F S Su (S)		
US Core	University Seminar	3	F S Su (S)		
Sophomore Year		**Credits**	**Semester**	**Year**	**EXCEPTIONS**
ENSC 245IN	Soils	3	F		
GPHY 284	Intro to GIS Science & Cartography	3	F S Su (F)		
PHSX 205	College Physics I	4	F S Su (F)		
STAT 216Q (or higher) or	Intro to Statistics	3	F S Su (F)		
BIOB 318	Biometry		F		
BIOO 230	Identification of Seed Plants	4	S		
ENSC 210	Role of Plants in the Environment	3	S		
ENSC 260	Evolution for Environ Scientists	3	S		
WRIT 201 or HONR 202IH	College Writing II/Texts&Critics: Imag	3	S		
Univ. Core		6			
Junior Year		**Credits**	**Semester**	**Year**	**EXCEPTIONS**
ENSC 353	Environmental Biogeochemistry	3	F		
ENSC 444	Watershed Hydrology	3	F		
ENSC 454	Landscape Pedology	3	F		
BIOE 370 or	General Ecology	3	F S (F)		
NRSM 240	Natural Resource Ecology		F		
BIOM 452	Soil & Environmental Microbiology	3	S		
ENSC 460	Soil Remediation	3	S		
Univ. Core & Directed Electives		12			
Senior Year		**Credits**	**Semester**	**Year**	**EXCEPTIONS**
ENSC 410R	Biodiversity Monitoring Methods	3	F		
ENSC 443	Weed Ecology & Management	3	F		
ENSC 448	Stream Restoration Ecology	3	F		
ENSC 461	Restoration Ecology	3	F		
NRSM 430 or	Natural Resource Law	3	F		
PSCI 362	Natural Resource Policy		S		
ENSC 499R	LRES Capstone	3	F S		
ENSC 464 or	Computational Techniques Envir Sci	1	S		
ENSC 465	Environmental Biophysics I	3	S		
Directed Electives		8-10			

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. Courses not on this list may be used IF considered appropriate to the student's goals AND approved by the faculty advisor as a curricular exception.

DIRECTED ELECTIVES - Choose 14-16 credits from the following:

Subject/#	Course Title	Credits	Semester	Year	EXCEPTIONS
AGSC 454	Agrostology	3	F (odd)		
BIOE 375	Ecol Responses Climate Change	3	S		
BIOE 428	Freshwater Ecology	3	F		
BIOE 455	Plant Ecology	3	S		
BIOO 433	Plant Physiology	3	S		
BIOO 435	Plant Systematics	3	F		
ENSC 407	Environmental Risk Assessment	3	F		
ENSC 445	Watershed Analysis	3	S		
ENSC 466	Chemical Ecology	3	F		
ENSC 468	Ecosystem Biogeochem Global Change	3	S		
ERTH 307	Principles of Geomorphology	4	F		
GPHY 357	GPS Fund/App in Mapping	3	F		
GPHY 384	Adv GIS and Spatial Analysis	3	F		
GPHY 484R	Applied GIS & Spatial Analysis	3	S		
NRSM 350	Vegetation of Western Wildlands	3	S		
NRSM 351	Biomes of Western Wildlands	2	S		
NRSM 453	Habitat Inventory and Analysis	3	F		
WILD 301	Prin of Fish & Wildlife Mgmt	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 490R 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

September 2022