

MONTANA STATE UNIVERSITY - COLLEGE OF AGRICULTURE
Department of Land Resources & Environmental Sciences
B.S. in Environmental Sciences/Environmental Biology

04-06: for PLANNING. FINAL COPY for GRADUATION to be TYPED by LRES Office.

_____ **2004-2006** _____ **ENVS/ENVB**
 Name of Student _____ GID # _____ Catalog _____ Curriculum/Option _____

Total semester credits must equal a minimum of 120 credits

Total upper division must equal a minimum of 42 credits

DEPARTMENTAL REQUIREMENTS

Dept/#	Subject	Sem	Yr	Cr
LRES 110	Land Resources & Environ Sci	F		3
CHEM 131	General Chemistry I	F,S,Su		4
CHEM 132	General Chemistry II	F,S,Su		4
ECON 101IS	Econ Way of Thinking	F,S,Su		3
Choose 1:	MATH 170Q Survey of Calc	F,S,Su		4
	MATH 175Q Calc Tech I	F,S		3
	MATH 181Q Calc&An Geom I	F,S,Su		4

Students who anticipate graduate study or technical employment are strongly advised to complete a two-semester calculus sequence. (175-176 or 181-182)

ENGL 121W	College Writing I	F,S,Su		3
<i>ENGL 121W is waived with an ACT English Score of 27 or higher, or SAT Verbal Score of 640 or higher.</i>				
Choose 1:	ENGL 221 College Writing II	F,S		3
	ENGL 223 Technical Writing	F,S		3
LRES 201IN	Soil Resource	F		3
CHEM 215	Elements Organic Chemistry	F,S		5
PHYS 205	College Physics I	F,S,Su		4
BIOL 213	Intro Biol: Cells-Organisms	S		4
BIOL 214	Intro Biol: Molecules-Cells	F		4
Choose 1:	ARNR 240 Nat Res Ecology	F		3
	BIOL 303 Prin of Ecology	S		3
BCHM 340	General Biochemistry	F,S,Su		5
BIOL 301	Principles of Genetics	F,S		3
MB 301	General Microbiology	F,S		5
LRES 310	Professional Preparation	S		1
Choose 1:	PS 318 Biometry	F		3
	STAT 216Q Elem Statistics	F,S,Su		3
LRES 351	Nutrient Cycling	S		3
LRES 355	Soil & Environmental Chem	S'od		3
LRES 415	Microbial Diversity Ecol Evol	S'ev		3
LRES 418	Microbial Diversity Ecol Evol Lab	S'ev		1
LRES 440	Field Applications in LRES	F		4
LRES 452	Soil & Environmental Microb	S'od		3
LRES 453	Soil & Environmental Physics	F'od		3
BIOL 403	Evolution	S		3

An independent research project or internship is strongly recommended for LRES majors:

- LRES 470 (Individual Problems) or*
- LRES 476 (Internship) or*
- LRES 489/490 (Undergrad Research/Research Instruction)*

Dept/#	Subject	Cr.	for	Dept/#	Cr

CORE 2.0 REQUIREMENTS

ALL CORE 2.0 REQUIREMENTS MUST BE A GRADE OF C- OR BETTER

See Page 55 of the 04-06 MSU Catalog for permitted substitutions for CS and IN requirements. *Note that some of the required courses for this major will count toward completion of the CORE requirements.*

Dept/#	Subject	Sem	Yr	Cr
Seminar (US) (1 course)				
Quantitative Reasoning (Q) (1 Course)				
Writing (W) (1 Course)				
Inquiry-Arts (IA) 1 Course				
Inquiry-Humanities (IH) (1 Course)				
Inquiry-Social Sciences (IS) (1 Course)				
Inquiry-Natural Science (IN) (1 Course)				
Diversity (D) (1 Course)				
Research & Creative Experience (R) (3 Credits)				
Contemporary Issues in Science (CS) (1 Course)				

Total Credits _____ Upper Division _____

 Student Signature _____ Date _____

 Advisor Signature _____ Date _____

 Dept. Certifying Officer Signature _____ Date _____

SEE REVERSE SIDE FOR REQUIRED ADVANCED ELECTIVES COURSES

SUBSTITUTIONS FOR REQUIRED COURSES

ADVANCED ELECTIVES COURSES

*Students must work with their advisor to develop a list of advanced courses based on academic and professional goals. Before their senior year, and before taking any of the proposed credits, students must submit this list together with a written statement justifying the courses selected for approval by the department.

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Choose **minimum of 12 credits**

Environmental Microbiology:

BIOL 433	Phycology	S ^{od}	3
MB 420	Microbial Physiology	F	3
MB 433	Applied & Environ Microbiol	F	4
MB 449	Microbial Genetics	S	3
MB 450	Research Methods in Microbiol	S	4
PS 423	Mycology	F ^{ev}	3

Environmental Macrobiology:

BIOL 405	Adv Animal Ecology	S	3
BIOL 411	Animal Physiology	F	3
BIOL 415*	Ichthyology	S	3
BIOL 418*	Mammalogy	F	3
BIOL 419*	Ornithology	S	3
BIOL 430	Plant Physiology	S	3
BIOL 432*	Plant Anatomy	F ^{od}	3

Natural Ecosystems:

BIOL 404	Limnology	F	3
BIOL 406	Rocky Mountain Ecosystems	F	2
BIOL 427*	Aquatic Field Ecology	F	2
BIOL 439	Stream Ecology	F	3

Applied Ecology:

ARNR 438*	Wildlife Habitat Ecology	S	3
ARNR 453	Habitat Inventory & Analysis	F	3
CE 442	Environmental Science	F	3
ENTO 401*	Integrated Pest Mgmt	S ^{ev}	3
F&WL 301	Prin Fish & Wildlife Mgmt	S	3
LRES 325IN	Remote Sensing	F	3
LRES 443	Weed Ecology & Mgmt	F	3
LRES 444	Watershed Hydrology	F	3
LRES 461	Restoration Ecology	F	3

Policy and Planning:

BREN 330	Water Resource Law	S ^{ev}	2
ECON 332*	Econ of Natural Resources	F	3
LRES 421	Holistic Thought & Mgmt	S	4
POLS 350*	Natural Resource Policy	S ^{ev}	3

*Note: Prerequisite(s) may not be met by courses in this curriculum.