

MONTANA STATE UNIVERSITY - COLLEGE OF AGRICULTURE
Department of Land Resources & Environmental Sciences
Degree Requirements for a B.S. in Land Rehabilitation
2006-2008 Catalog

Name of Student: _____

ID# _____

Curriculum Code: LAND

Total Semester Credits must equal a minimum of 120 credits; Total upper division must equal a minimum of 42 credits
ALL DEPARTMENTAL REQUIREMENTS & THEIR PREREQUISITES MUST BE A GRADE OF C- OR BETTER

DEPARTMENTAL REQUIREMENTS		CR: 90		
Dept/#	Subject	Sem	Year	Cr
LRES 110	Land Resources & Environ Sci	F		3
BIOL 101IN	Organismal Biology	F S		4
BIOL 102	Molecular & Cellular Biology	F S		4
CHEM 131	General Chemistry I	F S Su		4
CHEM 132	General Chemistry II	F S Su		4
ECON 101IS	Economic Way of Thinking	F S Su		3
ENGL 121W	College Writing I	F S Su		3
<i>ENGL 121W is waived with an ACT English Score of 27 or higher, or an SAT Verbal Score of 640 or higher.</i>				
ESCI 112CS	Physical Geography	F S		4
MATH 170Q or	Survey of Calculus	F S Su		4
MATH 175Q or	Calculus Tech I	F S		3
MATH 181Q	Calculus Analytical Geometry	F S Su		4
<i>Students who anticipate graduate study or technical employment are strongly advised to complete a two-semester calculus sequence</i> <i>MATH 175 - 176 or MATH 181 - 182</i>				
ME 116	Engr Design Graphics Lab	F S		1
ARNR 240 or	Natural Res Ecology	F		3
BIOL 303	Principles of Ecology	S		3
BIOL 230	ID of Seed Plants	S		4
ENGL 221 or	College Writing II	F S		3
ENGL 223	Technical Writing	F S		3
LRES 201N	Soil Resource	F		3
PHYS 205	College Physics I	F S Su		4
STAT 216Q or	Elementary Statistics	F S Su		3
PSPP 318	Biometry	F		3
GEOG 305	GIS & Spatial Analysis	F S		3
LRES 310	Professional Preparation	S		1
LRES 355	Soil & Environ Chemistry	S'od		3
ARNR 453	Habitat Inventory & Analysis	F		3
BIOL 434 or	Agrostology	F'od		3
BIOL 436	Plant Systematics	F'ev		3
ESCI 440	Ground-Water Resource	F'ev		3
LRES 441R	Capstone 1 Field Applic LRES	S		1
LRES 442R	Capstone 2 Field Applic LRES	F		3
LRES 443	Weed Ecology & Mgmt	F		3
LRES 444	Watershed Hydrology	F		3
LRES 453	Soil Physics	F'od		3
LRES 454	Landscape Pedology	F		3
LRES 460	Soil Remediation	S		3
LRES 461	Restoration Ecology	F		3

ADVANCED ELECTIVE COURSES		CREDITS REQUIRED: 15		
Dept/#	Subject	Sem	Year	Cr
<i>Students must work with their advisor to develop a list of advanced 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. Select a focal area and take 15 credits from the following electives.</i>				
Microbial/Bioremediation Focus				
These 13 credits plus 2 from either Soil & Water focus, Plant/Revegetation focus or Additional Courses list.				
LRES 452	Soil & Environ Microbiology	S'od		3
CHEM 215	Elem Organic Chemistry	F S		5
MB 301	General Microbiology	F S		5

Soil & Water Sciences Focus				
These 9 credits plus 6 from either Microbial/Bioremediation focus, Plant/Revegetation focus or Additional Courses list.				
LRES 351	Nutrient Cycling	S		3
LRES 344	Water Quality	S		3
ESCI 440	Surface-Water	F		3

Plant/Revegetation Focus				
These 10 credits plus 5 from either microbial/Bioremediation focus, Soil & Water Focus or Additional Courses list.				
ARNR 350	Vege of Western Wildlands	S		3
BIOL 430	Plant Physiology	S		4
PSPP 245	Plant Propagation	S		3

Additional Courses				
LRES 357	GPS Fund Apps in Mapping	FS		3
LRES 421	Holistic Thought & Mgmt	S		4
ARNR 351	Biomes of Western Wildlands	S		2
F&WL 301	Principles of F&WL Mgmt	S		3
GEOG 411	Adv GIS & Spatial Analysis	S		3

SUBSTITUTIONS FOR REQUIRED COURSES					
Dept/#	Subject	Cr	for	Dept/#	Cr

An independent research project or internship is strongly recommended for LRES majors:
LRES 476 Internship; LRES 470 Independent Study; LRES 490 Undergrad Research

CORE 2.0 REQUIREMENTS

All Core 2.0 requirements must be a grade of C- or better

Dept/#	Course Title	Credits	Sem	Year
Foundation Courses				
Seminar (US) 1 course				
Diversity (D) 1 course				
Writing (W) 1 course (met by departmental requirements)				
ENGL 121W	College Writing I	3		
Quantitative Reasoning (Q) 1 course (met by departmental requirements)				
Contemporary Issues in Science (CS) 1 course (met by departmental requirements)				
Ways of Knowing: Inquiry & Research & Creative Experience				
Arts (IA or RA) 1 course				
Humanities (IH or RH) 1 course				
Social Sciences (IS or RS) 1 course (met by departmental requirements)				
ECON 101IS	Economic Way of Thinking	3		
Natural Science (IN or RN) 1 course (met by departmental requirements)				
Research & Creative Experience (R,RA, RH, RN or RS) 3 credits (met by departmental requirements)				
(Courses designated RA, RH, RN, or RS double count. For example, a course designated as RA will satisfy both the Arts and the Research and Creative Experience requirements.)				
LRES 441/442	Capstone 1 & 2 Field Applic in LRES	4		

1. A grade of C- or better is required in all core courses.
2. Completion of UH 202 with a grade of C- or better satisfies the Humanities Inquiry requirement.
3. Completion of at least two of the following courses with a grade of C- or better satisfies both the CS and the IN requirements: ARNR 240; BCHM 122; BIOL 101, 102, 204, 207, 208, 213, 214, 215, 251; CHEM 121, 131, 132, 141, 142, 215; ESCI 111, 112; GEOL 102, 204, 210; LRES 201; MB 201; MBEH 210; PHYS 205, 206, 211, 212, 213, 221, 222; PSPP 102.

Total Credits: _____ **Upper Division:** _____

Student Signature **Date**

Advisor Signature **Date**

Dept. Certifying Officer Signature **Date**