

**MONTANA STATE UNIVERSITY - COLLEGE OF AGRICULTURE**  
**Department of Land Resources & Environmental Sciences**  
**Degree Requirements for a B.S. in Land Resource Sciences/Land Resources Analysis & Management**  
**2008-2010 Catalog Curriculum: LRLR**

Name of Student: \_\_\_\_\_ ID# \_\_\_\_\_ Date: \_\_\_\_\_

**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				
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
ENGL 121W	College Writing I	F S Su		3
ENGL 121W 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.				
ESCI 111IN	Physical Geology	F S Su		4
ESCI 112CS	Physical Geography	F S		4
<i>Choose one Math/Statistics Sequence, Option A or B</i>				
<i>Option A</i>				
MATH 170Q &	Survey of Calculus	F S Su		4
STAT 216Q &	Elementary Statistics	F S Su		3
STAT 217Q	Intermediate Statistics	F S Su		3
<i>Option B</i>				
MATH 181Q &	Calculus & Analytical Geom I	F S Su		4
MATH 182Q &	Calculus & Analytical Geom II	F S Su		4
STAT 332	Stats Scientists & Engineers	F S		3
<i>Students who anticipate graduate study or technical employment are strongly advised to complete Option B</i>				
<i>Take one of the following:</i>				
ARNR 240	Natural Res Ecology	F		3
BIOL 303	Principles of Ecology	S		3
ENGL 221	College Writing II	F S		3
GEOG 211	Intro Geographic Info Science	F		3
LRES 201IN	Soil Resource	F		3
LRES 244CS	Intro Water Resources	F		3
PHYS 205	College Physics I	F S Su		4
GEOG 305	Adv Geographic Info Science	F S		3
LRES 310	Professional Preparation	S		1
LRES 357	GPS Fund & App in Mapping	F S		3
GEOG 411R	Applied GIS & Spatial Analysis	S		3
LRES 426	Remote Sensing Digital Imag	F		3
LRES 441	Capstone 1 Field Applic LRES	S		1
LRES 442R	Capstone 2 Field Applic LRES	F		3
LRES 444	Watershed Hydrology	F		3
LRES 445	Watershed Analysis	S		3
LRES 454	Landscape Pedology	F		3
POLS 450	Natural Resource Policy	S		3

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

ADVANCED ELECTIVE COURSES				Credits Required: 20
Complete a minimum of 20 credits of listed electives below, meeting the following requirements:				
A. No more than four (4) credits from Human Systems electives count toward the 20 credit requirement.				
B. Up to three (3) elective credits may be received for advisor-approved LRES 470 (Independent Study) or LRES 490 (UG Research)				
C. At least 14 credits must be 300-400 level coursework				
Soil & Water Electives (at least two courses)				
LRES 344	Water Quality	S		3
LRES 351	Nutrient Cycling	S		3
LRES 355	Soil & Environ Chemistry	S'od		3
LRES 452	Soil & Environ Microbiology	S'od		3
LRES 453	Soil & Environ Physics	F'od		3
LRES 454	Landscape Pedology	F		3
LRES 460	Soil Remediation	S		3
ESCI 307	Prin Geomorphology	F		4
ESCI 432R	Surface-Water Resources	F'od		3
ESCI 440	Ground-Water Resources	F'ev		3
Ecology Electives (at least two courses)				
LRES 415	Microbial Diversity Ecol Evol	S'ev		3
LRES 428	Cropping Syst & Sustain Ag	S'od		3
LRES 443	Weed Ecology & Mgmt	F		3
LRES 461	Restoration Ecology	F		3
ARNR 345	Riparian Ecology & Mgmt	S		3
ARNR 453	Habitat Inventory & Analysis	F		3
BIOL 406	Rocky Mtn Vegetation	F		2
BIOL 407	Alpine Ecology	Su		3
BIOL 424	Freshwater Ecology	F		3
Technical Electives				
CE 201	Surveying (Su on demand)	F S		3
CE 463	Photogrammetry	F'od		2
ESCI 310	Aerial Photo Interpretation	F		4
STAT 410	Methods Data Analysis I	F		3
Human Systems Electives (no more than six credits)				
LRES 421	Holistic Thought & Mgmt	S		4
ECON 332	Econ Natural Resources	F		3
GEOG 201D	Human Geography	F		3
SOC 328	Environ Sociology (on demand)			3
Other Electives:				
BIOL 430	Plant Physiology	S		3
BIOL 436	Plant Systematics	F'ev		3

**An independent research project or internship is strongly recommended for LRES majors: LRES 470 Independent Study; LRES 476 Internship; 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	Yr
<b>FOUNDATION COURSES</b>				
<b>Seminar (US) 1 course</b>				
<b>Diversity (D) 1 course</b>				
<b>Writing (W) 1 course (met by departmental requirements)</b>				
ENGL 121W	College Writing I	3		
<b>Quantitative Reasoning (Q) 1 course (met by departmental requirements)</b>				
<b>Contemporary Issues in Science (CS) 1 course (met by departmental requirements)</b>				
<b>WAYS OF KNOWING: INQUIRY &amp; RESEARCH &amp; CREATIVE EXPERIENCE</b>				
<b>Arts (IA or RA) 1 course</b>				
<b>Humanities (IH or RH) 1 course</b>				
<b>Social Sciences (IS or RS) 1 course</b>				
		3		
<b>Natural Science (IN or RN) 1 course (met by departmental requirements)</b>				
BIOL 101IN	Organismal Biology	4		
<b>Research &amp; Creative Experience (R,RA, RH, RN or RS) 3 credits (met by departmental requirements)</b>				
(Courses designated RA, RH, RN, or RS double count. For example, a course designated as RA will satisfy both the Arts and the Research				
LRES 441/442R	Capstone 1 & 2 Field Applic in LRES	4		
<p>1. A grade of C- or better is required in all core courses.</p> <p>2. Completion of UH 202 with a grade of C- or better satisfies the Humanities Inquiry requirement.</p> <p>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.</p>				

**Total Credits:** \_\_\_\_\_ **Upper Division:** \_\_\_\_\_

\_\_\_\_\_  
**Student Signature** **Date**

\_\_\_\_\_  
**Advisor Signature** **Date**

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**Dept. Certifying Officer Signature** **Date**