



**Bachelor of Science in Agriculture, Food and Environmental Sciences**  
**Major: Ecology and Environmental Science: Rangeland Ecology and Management Specialization**  
**2019-2020 Sample 4-Year Plan**

**Total Degree Requirements: 120 credits**

Student \_\_\_\_\_ Student ID# \_\_\_\_\_ Student Phone # \_\_\_\_\_  
 Advisor \_\_\_\_\_ Minimum GPA 2.0 Minor/Career Interest(s) \_\_\_\_\_

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the [Undergraduate Catalog](#).

**First Year**

**Fall**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 151-151L	General Biology I and Lab (SGR #6)		4	F	
CHEM 106-106L or CHEM 112-112L	Chemistry Survey and Lab (SGR #6) or General Chemistry I and Lab (SGR #6)	p. MATH placement p. MATH 114 or higher	4		
MATH 114 or MATH 115 or MATH 121-121L or MATH 123	College Algebra (SGR #5) or Precalculus (SGR #5) or Survey of Calculus and Lab (SGR #5) or Calculus I (SGR #5)	p. Placement	3		
ENGL 101	Composition I (SGR #1)	p. Placement	3		
NRM 119	Orientation to Natural Resource Management		2	F	
<b>Total Credit Hours</b>			16		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 153-153L or BOT 201-201L or NRM 200-200L	General Biology II and Lab or General Botany and Lab or Animal Diversity and Lab	p. BIOL 101 or BIOL 151 p. BIOL 101 or BIOL 151	4	S	
CHEM 108-108L or CHEM 114-114L	Organic and Biochemistry and Lab General Chemistry II and Lab	p. CHEM 106 p. CHEM 112, MATH 114 or higher	5		
RANG 205	Introduction to Range Management		3	S	
AS 101-101L	Introduction to Animal Science and Lab		4	S	
<b>Total Credit Hours</b>			16		

**Summer**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
NRM 230	Natural Resource Management Techniques	Week long summer course	3	SU	
<b>Total Credit Hours</b>			3		

**Second Year**

**Fall**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
NRM 282-282L	Natural Resource Statistics and Lab	p. MATH 114 or higher	3	F	
PS 213-213L	Soils and Lab	p. CHEM 106/L or CHEM 112/L	3		
RANG 210-210L	Range Plant Identification and Lab		2	F	
SOC 100, SOC 150, or SOC 240	Introduction to Sociology, Social Problems, or The Sociology of Rural America (SGR#3)		3		
ENGL 201	Composition II (SGR #1)	p. ENGL 101	3		
<b>Total Credit Hours</b>			14		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
SPCM 101	Fundamentals of Speech (SGR #2)		3		
ECON 201	Principles of Microeconomics (SGR #3)		3		
NRM 300	Laws and Policies in Natural Resource Management		3	S	
RANG 215	Introduction to Ranch Management	Cross-listed with AS 215	3	S	
SGR #4	Arts and Humanities/Diversity (SGR #4)		3		
<b>Total Credit Hours</b>			15		

**Information Subject to Change. This is not a contract.**

p. = Course Prerequisite  
 Semester: F = Fall, S = Spring, SU = Summer



**Summer**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
RANG 425-425L	Rangeland Assessment and Monitoring and Lab	p. NRM 282	3	Su Odd	
<b>Total Credit Hours</b>			3		

**Third Year**

**Fall**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
NRM 311	Principles of Ecology	p. BIOL 151/L or BIOL 153/L; Cross-Listed: BIOL 311	3	F	
NRM 311L	Principles of Ecology Lab	Cross-Listed: BIOL 311L	1	F	
RANG 321 or RANG 421	Wildland Ecosystems or Grassland Fire Ecology	Cross-listed with WL 421/L	3	S Odd F Odd	
RANG 374-374L	Habitat Conservation and Management and Lab		3	F	
SGR #4	Arts and Humanities/Diversity (SGR #4)		3		
<b>Total Credit Hours</b>			13		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
EES 491, EES 494, EES 496 or EES 498	Independent study, Internship, Field Experience or Undergraduate Research/Scholarship		1		
Supporting management courses	Select 6 credits from the following courses: AGEC 271 Farm and Ranch Management BOT 303 Forest Ecology and Management and Lab PS 313 Forage Crop and Pasture Management WL 220 Introduction to Wildlife and Fisheries Management	p. MATH  p. BIOL 151	3	F F S	
AS 218	Survey of Animal Nutrition	p. AS 101	3	S	
RANG 400	Judging Teams	p. Instructor consent	1	S	
PHYS 101-101L or PHYS 111-111L	Survey of Physics and Lab or Introduction to Physics I and Lab	p. MATH 114 or higher	4		
Electives	General electives or from supporting course lists		3		
<b>Total Credit Hours</b>			15		

**Fourth Year**

**Fall**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
EES 425-425L	Disturbance & Restoration Ecology and Lab		3	F Even	
Supporting management courses	Select 6 credits from the following courses: AGEC 271 Farm and Ranch Management BOT 303 Forest Ecology and Management and Lab PS 313 Forage Crop and Pasture Management WL 220 Introduction to Wildlife and Fisheries Management	p. MATH  p. BIOL 151	3	F F S	
GEOG 372-372L	Introduction to GIS and Lab		3		
Electives	General electives or from supporting course lists		4		
<b>Total Credit Hours</b>			13		

**Spring**

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
ABS 475-475L	Integrated Natural Resource Management and Lab	p. Senior standing	3	S	
BOT 301-301L	Plant Systematics	p. BIOL 151/L or BIOL 153/L	3	S Odd	
PRAG 410-410L or PS 462-462L	Soil Geography and Land Use Interpretation and Lab Environmental Soil Management and Lab	p. PS 213-213L p. PS 213-213L	3	F S	
Electives	General electives or from supporting course lists		3		
<b>Total Credit Hours</b>			12		

**Comments/Notes**

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the [Honors program requirements](#).

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p. = Course Prerequisite  
Semester: F = Fall, S = Spring, SU = Summer