South Dakota State University

Bachelor of Science
Major: Ecology and Environmental Science
Specialization: Rangeland Ecology and Management
2025-2026 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/S(I)	
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	F/S F/S	
MATH 114 or higher	College Algebra or higher (SGR #5)	p. Placement	3	F/S	
NRM 119	Orientation to Natural Resource Management		2	F	
SGR #1	Written Communication (SGR #1)	p. Placement, ENGL 101 recommended	3		
		Total Credit Hours	16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AS 101-101L	Introduction to Animal Science and Lab	Fall semester for Animal Science majors	4	F/S	
BIOL 153-153L or BOT 201-201L	General Biology II and Lab (4 cr) or General Botany and Lab (3 cr)	p. BIOL 101 or BIOL 151	3-4	F(I)/S S	
CHEM 108-108L or CHEM 114-114L	Organic and Biochemistry and Lab (5 cr) General Chemistry II and Lab (4 cr)	p. CHEM 106 or CHEM 112 p. CHEM 112, MATH 114 or higher	4-5	F/S F/S	
RANG 205-205L	Introduction to Range Management and Lab		3	S	
		Total Credit Hours	14-16		

SECOND YEAR

Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
NRM 230	Natural Resource Management Techniques	1 week summer course in person	2	SU	
		Total Credit Hours	2		

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
NRM 311	Principles of Ecology	p. BIOL 151/L or BIOL 153/L	3	F	
RANG 210L	Range Plant Identification Lab		2	F	
SGR #1	Written Communication (SGR #1)	p. ENGL 101	3		
SGR #4	Arts and Humanities (SGR #4)	Two different disciplines or a sequence of foreign language courses	3		
STAT 281	Introduction to Statistics	p. MATH 103 or higher	3	F/S/SU	
		Total Credit Hours	14		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AS 218	Survey of Animal Nutrition	p. AS 101 or DS 130	3	S	
NRM 276	Scientific Communications		1	F/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	F/S F	
PS 213-213L	Soils and Lab	p. CHEM 106/L or CHEM 112/L	3	F/S	
SGR #2	Oral Communication (SGR #2)	CMST 101 recommended	3		
		Total Credit Hours	14		

Information Subject to Change. This is not a contract.

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

THIRD YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
ECON 201	Principles of Microeconomics (SGR #3)		3	F/S/SU	
RANG 374-374L	Habitat Conservation and Management and Lab	sophomore standing or higher	4	F	
RANG 400	Judging Teams	p. Instructor consent	1	F	
RANG 425-425L	Rangeland Assessment and Monitoring and Lab	p. STAT 281; NRM 311	3	F Odd	
SGR #4	Arts and Humanities (SGR #4)	Different discipline	3		
		Total Credit Hours	14		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Select 6 credits from:		NRM 350 or NRM 410 may be selected	3	F/S/SU	
AGEC 271	Farm and Ranch Management	but not both courses.		F	
BOT 303-303L	Forest Ecology and Management and Lab			S	
NRM 350 or	Conserv and Mgmt of Endangered and Nongame Wildlife or	p. NRM 311 for NRM 350			
NRM 410	Conservation Biology	p. BIOL 151 for NRM 410		F	
PS 313	Forage Crop and Pasture Management	p. BIOL 101 or 151 for PS 313		F	
WL 220	Introduction to Wildlife and Fisheries Management			S	
WL 411-411L	Principles of Wildlife Management & Lab	p. NRM 230, 276, 311, & STAT 281		F	
NRM 300	Laws and Policies in Natural Resource Management		3	S	
RANG 215	Introduction to Integrated Ranch Management	Cross-listed with AS 215	3	S	
RANG 421	Grassland Fire Ecology	Online only, Cross-listed WL 421	3	S Even	
SGR #3	Social Sciences (SGR #3) – Civics Requirement	Select from the designated list of courses to fulfill civics requirement	3		
		Total Credit Hours	15		

FOURTH YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Select 6 credits from:		NRM 350 or NRM 410 may be selected	3	F/S/SU	
AGEC 271	Farm and Ranch Management	but not both courses.		F	
BOT 303-303L	Forest Ecology and Management and Lab			S	
NRM 350 or	Conserv and Mgmt of Endangered and Nongame Wildlife or	p. NRM 311 for NRM 350			
NRM 410	Conservation Biology	p. BIOL 151 for NRM 410		F	
PS 313	Forage Crop and Pasture Management	p. BIOL 101 or 151 for PS 313		F	
WL 220	Introduction to Wildlife and Fisheries Management			S	
WL 411-411L	Principles of Wildlife Management & Lab	p. NRM 230, 276, 311, & STAT 281		F	
EES 425 or RANG 419-419L	Disturbance & Restoration Ecology or Plant Ecology and Lab	p. NRM 311 p. BIOL 153 or BOT 201, Cross-listed BOT 419/L	3	F Even F Even	
General Electives	From any discipline to reach 120 total credits		4-6		
GEOG 372-372L	Introduction to GIS and Lab		3	F/S/SU	
RANG 491, 494, 496 or 498	Independent Study, Internship, Field Experience or Undergraduate Research/Scholarship	p. Instructor consent	1	F/S/SU	
		Total Credit Hours	14-16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BOT 301-301L	Plant Systematics and Lab	p. BIOL 151/L or BIOL 153/L	3	S	
General Electives	From any discipline to reach 120 total credits		3		
NRM 485	Integrated Natural Resource Management	Senior standing	3	S	
PRAG 410-410L or PS 462-462L	Soil Geography and Land Use Interpretation and Lab Environmental Soil Management and Lab	p. PS 213-213L or GEOG 132-132L; cross-listed GEOG 410-410L p. PS 213-213L	3	F/S S Even	
RANG 321	Wildland Ecosystems		3	S Odd	
		Total Credit Hours	15		

COMMENTS/NOTES

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the Honors program requirements.

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