RANGE SCIENCE - BACHELOR OF SCIENCE IN AGRICULTURE

The following course work prepares you for study and management of rangelands through an integrated ecological approach with special emphasis on rangeland plants, livestock, wildlife, soils and watersheds. The course work is also well designed for those who want to continue study in graduate school. Any undergraduate student majoring in Range Science must earn a grade of C- or higher in Range Science (RGSC prefix) courses to satisfy degree requirements. Students earning a D or F in a Range Science (RGSC prefix) course will be expected to repeat that course until the student earns a grade of C- or higher.

Requirements

Students must complete all University degree requirements, which include: General Education requirements, Viewing a Wider World requirements, and elective credits to total at least 120 credits with 48 credits in courses numbered 300/3000 or above. Developmental coursework will not count towards the degree requirements and/or elective credits, but may be needed in order to take the necessary English and Mathematics coursework.

Prefix	Title	Credits
General Education		
Area I: Communications		*10*
English Composition - Level 1 [1]		
English Composition - Level 2 [1]		
Oral Communication [1]		
ACOM 1130G	Effective Leadership and Communication in Agriculture	
or COMM 1115G	Introduction to Communication	
Area II: Mathematics [2]		
MATH 1220G	College Algebra	3
Area III/IV: Laboratory Sciences and Social/Behavioral Sciences		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4
Select one from the following:		3
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Principles of Microeconomics	
Area V: Humanities		
PHIL 1145G	Philosophy, Law, and Ethics	3
or PHIL 2110G	Introduction to Ethics	
Area VI: Creative and Fine Arts [1]		*3*
General Education Elective		
BIOL 2610G	Principles of Biology: Biodiversity, Ecology, and Evolution	3
Viewing A Wider World [3]		**6**
Departmental/College Requirements		
Range Science Core		
RGSC 1110	The Range Science Profession	1
RGSC 2110	Introduction to Rangeland Management	3
RGSC 316	Rangeland Plants	3
RGSC 317	Rangeland Communities	3
RGSC 318	Watershed Management	3
RGSC 325	Rangeland Restoration Ecology	3
RGSC 357	Grass Taxonomy and Identification	3
RGSC 402	Seminar	1
or RGSC 402 H	Range Science Seminar	
RGSC 440	Rangeland Resource Ecology	3
RGSC 440 L	Rangeland Resource Ecology Lab	1
RGSC 452	Vegetation Measurements for Rangeland Assessment	4
RGSC 460	Rangeland and Natural Resource Planning and Management	4
Non-Departmental Requirements (in addition to Gen.Ed/VWW)		
Other Required Courses		
A ST 311	Statistical Applications	3
ANSC 1170	Introduction to Animal Metabolism	3-4
or CHEM 2115	Survey of Organic Chemistry and Laboratory	
BIOL 2110G	Principles of Biology: Cellular and Molecular Biology	3
EPWS 314	Plant Physiology	3
FWCE 2110	Principles of Fish and Wildlife Management	3
Select one from the following:		4
GEOG 381	Cartography and GIS	
or FWCE 471	GIS for Natural Resource Scientists	
A 300/400-level GIS Course		
SOIL 2110	Introduction to Soil Science	3
SOIL 2110L	Introduction to Soil Science Laboratory	1
SOIL 472	Soil Morphology and Classification	4
Natural Resource Management		
Choose two courses from the following:		6
AEEC 3120V	Natural Resource Economics	
AEEC 3130V	Water Resource Economics	
AEEC 3280	Applied Production Economics	
AEEC 4530	Case Studies in Food and Agribusiness Management	
FWCE 1110G	Introduction to Natural Resources Management	
FWCE 2110	Principles of Fish and Wildlife Management	
FWCE 437	Wildlife Damage Management	
RGSC 302V	Forestry and Society	
ANSC Elective		*3*
ANSC 1120	Introduction to Animal Science	
or ANSC 1120H	Introduction to Animal Science Honors	
ANSC 304	Feeds and Feeding	
ANSC 351V	Agricultural Animals of the World	
ANSC 422	Animal Nutrition	
ANSC 426	Beef Production: Cow-Calf Management	
ANSC 428	Sheep and Wool Production	
ANSC 458	Livestock Behavior, Welfare and Handling	
Second Language: (not required)		
Electives, to bring the total credits to 120 [4]		**12-13**
Total Credits		**120**

1 See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses

2 MATH 1220G College Algebra is required for the degree but students may need to take any prerequisites needed to enter MATH 1220G first.

[3] See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses

[4] Elective credit may vary based on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis and students should discuss elective requirements with their advisor.

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1220G College Algebra and ENGL 1110G Composition I . The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

First Year		
Semester 1		**Credits**
ENGL 1110G	Composition I	4
MATH 1220G	College Algebra	3
RGSC 1110	The Range Science Profession	1
RGSC 2110	Introduction to Rangeland Management	3
ACES 1120	Freshman Orientation	1
Area VI: Creative and Fine Arts [2]		3
	Credits	**15**
Semester 2		
ACOM 1130G	Effective Leadership and Communication in Agriculture	3
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
CHEM 1121	General Supplemental Instruction I	1
Choose from one of the following Area I courses: [2]		3
ENGL 2130G	Advanced Composition	
ENGL 2210G	Professional and Technical Communication Honors [1]	
ENGL 2210H	Professional and Technical Communication Honors	
ENGL 2215G	Advanced Technical and Professional Communication	
ENGL 2221G	Writing in the Humanities and Social Science [1]	
Choose from one of the following Area IV courses: [2]		3
PHIL 1145G	Philosophy, Law, and Ethics	
PHIL 2110G	Introduction to Ethics	
Elective Course		1
	Credits	**15**
Second Year		
Semester 1		
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory [1]	4
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors	4
CHEM 1122	General Supplemental Instruction II	1
Choose from one of the following Area IV General Education Courses: [2]		3
ECON 1110G	Survey of Economics	
ECON 2110G	Macroeconomic Principles	
ECON 2120G	Principles of Microeconomics	
Elective Course		3
	Credits	**15**
Semester 2		
BIOL 2110G & BIOL 2110L	Principles of Biology: Cellular and Molecular Biology and Principles of Biology: Cellular and Molecular Biology Laboratory [1]	4
Choose from one of the following:		3-4
ANSC 1170	Introduction to Animal Metabolism (Spring Only) [1]	
CHEM 2115	Survey of Organic Chemistry and Laboratory (Fall and Spring) [1]	
A ST 311	Statistical Applications [1]	3
RGSC 317	Rangeland Communities (Spring Only)	3
Elective Course		2
	Credits	**15-16**
Third Year		
Semester 1		
RGSC 452	Vegetation Measurements for Rangeland Assessment (Fall Only) [1]	4
RGSC 316	Rangeland Plants (Fall Only)	3
RGSC 325	Rangeland Restoration Ecology (Fall Only)	3
SOIL 2110 & 2110L	Introduction to Soil Science and Introduction to Soil Science Laboratory [1]	4
Elective Course		2
	Credits	**16**
Semester 2		
RGSC 357	Grass Taxonomy and Identification (Spring Only)	3
RGSC 318	Watershed Management (Spring Only)	3
Choose from one of the following:		3-4
GEOG 381	Cartography and GIS	
Any 300-level or 400-level GIS Course		
Choose from one of the following Animal Science courses:		3
ANSC 1120	Introduction to Animal Science	
ANSC 304	Feeds and Feeding	
ANSC 351V	Agricultural Animals of the World	
ANSC 422	Animal Nutrition	
ANSC 426	Beef Production: Cow-Calf Management	
ANSC 428	Sheep and Wool Production	
ANSC 458	Livestock Behavior, Welfare and Handling	
Elective Course		3
	Credits	**15-16**
Fourth Year		
Semester 1		
RGSC 402	Seminar	1
RGSC 440 & 440 L	Rangeland Resource Ecology and Rangeland Resource Ecology Lab (Fall Only)	4
SOIL 472	Soil Morphology and Classification (Fall Only) [1]	4
VWW: Viewing a Wider World Course [3]		3
Choose from one of the following Natural Resource Management courses:		3-4
AEEC 3110V	World Agriculture and Food Problems	
AEEC 3130V	Water Resource Economics (Spring Only)	

AEEC 3280	Applied Production Economics (Fall Only)	
AEEC 4530	Case Studies in Food and Agribusiness Management (Spring Only)	
FWCE 1110G	Introduction to Natural Resources Management	
FWCE 2110	Principles of Fish and Wildlife Management	
FWCE 437	Wildlife Damage Management	
RGSC 302V	Forestry and Society	
Elective Course		1
	Credits	**16-17**
Semester 2		
RGSC 460	Rangeland and Natural Resource Planning and Management (Spring Only)	4
EPWS 314	Plant Physiology (Spring Only) [1]	3
Choose from one of the following Natural Resource Management courses:		3-4
AEEC 3110V	World Agriculture and Food Problems (Fall Only)	
AEEC 3130V	Water Resource Economics (Spring Only)	
AEEC 3280	Applied Production Economics (Fall Only)	
AEEC 4530	Case Studies in Food and Agribusiness Management (Spring Only)	
FWCE 1110G	Introduction to Natural Resources Management	
FWCE 2110	Principles of Fish and Wildlife Management	
FWCE 437	Wildlife Damage Management	
RGSC 302V	Forestry and Society	
VWW: Viewing a Wider World Course		3
	Credits	**13-14**
	Total Credits	**120-124**

1 These courses have prerequisites and it is the students responsibility for checking and fulfilling all course prerequisites listed for these courses.

2 See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses.

3 See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses.