Range Science
www.ag.ndsu.edu/range

Range Science is a unique program that blends ecology and management for the purpose of sustaining rangelands. Rangelands are important for the diverse array of products and services they provide, including livestock production, wildlife habitat, clean air and water, and recreation to name a few. Rangeland ecosystems comprise over 40% of the earth’s land and include grasslands, savannas, shrublands, deserts, alpine meadows, marshes and wetlands. Rangelands are comprised mainly of native grasses, forbs, and shrubs which are extremely productive and rich in biodiversity.

Just as rangeland ecosystems are diverse, so too are the careers available in rangeland management. Professional career options for rangeland managers are in private and public land management, educators, ranching, wildlife and fisheries, hydrology and economics, scientists, and consultants. The majority of graduates in Range Science find employment with consulting firms, private industry, non-profit organizations, and state and federal agencies. Many of the state and federal agency jobs are as range conservationists with the USDA Forest Service and Natural Resource Conservation Service; USDI Bureau of Land Management, U.S. Fish and Wildlife Service and National Park Service; Bureau of Indian Affairs; and state agencies that include State Land Departments, State Health Departments and universities. Students in the Range Science program will take courses in animal sciences, biology, botany, chemistry, ecology, economics, natural resources management, plant sciences, range science, statistics, wildlife management, zoology, as well as the requirements of general education.

Major Requirements

Major: Range Science
Degree Type: B.S.
Required Degree Credits to Graduate: 132

General Education Requirements

First Year Experience (F):
AGRI 189 Skills for Academic Success (Students transferring in 24 or more credits do not need to take AGRI 189.) 1

Communication (C):
ENGL 110 College Composition I 3
ENGL 120 College Composition II 3
One Course in Upper Level Writing: Select one of the following: 3
ENGL 321 Writing in the Technical Professions
ENGL 324 Writing in the Sciences
ENGL 459 Researching and Writing Grants and Proposal
COMM 110 Fundamentals of Public Speaking 3

Quantitative Reasoning (R):
STAT 330 Introductory Statistics 3

Science & Technology (S):
CHEM 121 General Chemistry I 4
& 121L and General Chemistry I Laboratory
PLSC 110 World Food Crops 3
PLSC 315 Genetics 3

Humanities & Fine Arts (A): Select from current general education list 6

Social & Behavioral Sciences (B):
ECON 201 Principles of Microeconomics 3
Select from current general education courses 3

Wellness (W): Select from current general education courses 2

Cultural Diversity (D): Select from current general education list

Global Perspectives (G):
ECON 201 Principles of Microeconomics 3

Total Credits 40

Major Requirements

General Education Requirements 40
Required Courses for Range Science
AGRI 150  Agriculture Orientation (Students transferring in 24 or more credits do not need to take AGRI 150.)  1
ANSC 114  Introduction to Animal Sciences  3
ANSC 123  Feeds and Feeding  3
or ANSC 220  Livestock Production  
RNG 336  Introduction to Range Management  3
RNG 450  Range Plants  3
RNG 452  Geographic Information Systems in Range Survey  3
RNG 453  Rangeland Resources Watershed Management  3
or RNG 454  Wetland Resources Management  
RNG 456  Range Habitat Management  3
RNG 458  Grazing Ecology  3
RNG 460  Plant Ecology  3
RNG 462  Natural Resource and Rangeland Planning  3
RNG 491  Seminar  1
BIOL 150 & 150L  General Biology I and General Biology I Laboratory  4
BIOL 151 & 151L  General Biology II and General Biology II Laboratory  4
BOT 380  Plant Physiology  3
CHEM 122  General Chemistry II  3
CHEM 140  Organic Chemical Concepts and Applications  1
CHEM 260  Elements of Biochemistry  4
MATH 103  College Algebra (or higher level)  3
Select one of the following:  
PLSC 219  Introduction to Prairie & Community Forestry  
PLSC 320  Principles of Forage Production  
PLSC 323  Principles of Weed Science  
PLSC 315 & 315L  Genetics and Genetics Laboratory  4
SOIL 210  Introduction to Soil Science  3
SOIL 217  Introduction to Meteorology & Climatology  3
Select one of the following:  
SOIL 351  Soil Ecology  
SOIL 410  Soils and Land Use  3
SOIL 444  Soil Genesis and Survey  
ZOO 475  Conservation Biology  3
or ZOO 476  Wildlife Ecology and Management  

Degree Electives: Potential of a minimum of 17-18 credits to reach 132.  17

Total Credits  132

Minor Requirements
Range Science Minor
Minor Requirements
Required Credits: 16

Required Courses
RNG 225  Natural Resource & Agro-Ecosystems  3
RNG 336  Introduction to Range Management  3
RNG 450  Range Plants  3
Select one of the following:  
RNG 452  Geographic Information Systems in Range Survey  3
RNG 453  Rangeland Resources Watershed Management  3
RNG 460  Plant Ecology
RNG 456  Range Habitat Management  3
or RNG 458  Grazing Ecology

**Elective Course:** Seminar may be used to fulfill this elective.  1

**Total Credits**  16

**Minor Requirements and Notes:**

- A minimum of 8 credits must be taken at NDSU.
- Students must earn a minimum 2.00 GPA for the minor requirements.