

# BACHELOR OF SCIENCE WITH A COMPREHENSIVE MAJOR IN RANGELAND MANAGEMENT

A student must complete the following Core Requirements in addition to an option and the Essential Studies requirements.

(It is recommended that all students take one of the following to satisfy the Essential Studies Learning Outcome #6 requirement.) A minimum cumulative GPA of at least 2.50 is required in the rangeland management Core Requirements and option. The GPA will be calculated by using all accepted previous college/university coursework used for the rangeland management Core Requirements and option, as well as course work from CSC.)

Code	Title	Credits
Select one of the following:		3-4
BIOL 136 & 136L	BIOLOGICAL SCIENCE and BIOLOGICAL SCIENCE LAB	
BIOL 138 & 138L	GENERAL BIOLOGY: BOTANY and GENERAL BIOLOGY: BOTANY LABORATORY	
BIOL 139 & 139L	GENERAL BIOLOGY: ZOOLOGY and GENERAL BIOLOGY: ZOOLOGY LABORATORY	

## Core Requirements

Code	Title	Credits
Essential Studies ( <a href="http://catalog.csc.edu/undergraduate/essential-studies-program/">http://catalog.csc.edu/undergraduate/essential-studies-program/</a> )		
Core Requirements		
AGRI 110	AGRICULTURE SEMINAR I	1
AGRI 132	INTRODUCTION TO ANIMAL SCIENCE	3
AGRI 141	INTRO TO PLANT SCIENCE	3
AGRI 234	PRINCIPLES OF ANIMAL NUTRITION	3
AGRI 242	PRINCIPLES OF RANGELAND AND FORAGE MANAGEMENT	3
AGRI 245 & 245L	PRINCIPLES OF SOIL SCI and PRIN OF SOIL SCI LAB	4
AGRI 334	VEGETATION MANIPULATION PRACTICES	3
AGRI 348	RANGELAND HYDROLOGY	3
AGRI 339 & 339L	RANGE PLANT IDENTIFICATION and RANGE PLANT IDENTIFICATION LAB	3
AGRI 350 or AGRI 357	RANGELAND UNGULATE PRODUCTION or GRAZING ECOLOGY	3
AGRI 410	AGRICULTURE SEMINAR II	1
AGRI 428 & 428L	HABITAT INVENTORY & ANALYSIS and HABITAT INVENTORY AND ANALYSIS LAB	3
AGRI 438A & AGRI 438B	LAND RESOURCE MANAGEMENT PLANNING I and LAND RESOURCE MANAGEMENT PLANNING II	3
or AGRI 438C	LAND RESOURCE MANAGEMENT PLANNING III	
Select one of the following options:		18-21
Rangeland Ecology (p. 1)		
Rangeland Fire Management (p. 1)		
Rangeland Livestock Management (p. 2)		

Rangeland Wildlife Management (p. 2)	
Rangeland Equine Management (p. 3)	
Total Credits	54-57

## Rangeland Ecology Option

A student must complete the following program in addition to the Core and the Essential Studies requirements.

Code	Title	Credits
Core Requirements		36
AGRI 235	INTRODUCTION TO WILDLIFE MANAGEMENT	3
AGRI 357	GRAZING ECOLOGY	3
AGRI 436	RANGELAND & FIRE ECOLOGY	3
BIOL 337	ENVIRONMENTAL MANAGEMENT	3
GEOS 322	INTRODUCTION TO GIS	3
Select one of the following:		3
BIOL 347 & 347L	CRYPTOGAMIC BOTANY and CRYPTOGRAMIC BOTANY LABORATORY	
BIOL 431 & 431L	ENTOMOLOGY and ENTOMOLOGY LAB	
BIOL 438 & 438L	TAXONOMY OF PLANTS and TAXONOMY OF PLANTS LAB	
BIOL 439 & 439L	PLANT PHYSIOLOGY and PLANT PHYSIOLOGY LAB	
BIOL 447 & 447L	PLANT PHYLOGENY and PLANT PHYLOGENY LABORATORY	
BIOL 336 & 336L	GENERAL ECOLOGY and GENERAL ECOLOGY LAB	3
Total Credits		57

## Recommended Electives

In order to enhance employment opportunities, the following elective courses are recommended:

Code	Title	Credits
AGRI 221	FARM AND RANCH MANAGEMENT	3
AGRI 330	AGRICULTURAL ECONOMICS AND AGRIBUSINESS	3
AGRI 399	RANGELAND ECOSYSTEM FIELD STUDY	3
AGRI 411	CONSERVATION BIOLOGY	3
AGRI 420	RANGELAND SHORT COURSE	2
AGRI 451	HUMAN DIMENSIONS OF WILDLIFE MANAGEMENT	3
GEOS 321	INTRODUCTION TO GPS	1

or at the University of Nebraska – Lincoln courses in Natural Resource Policy, Watershed Management, Principles of Forestry, Disturbed Land Reclamation, and Remote Sensing/GIS

## Rangeland Fire Management Option

This program is designed for students who will complete two years at Casper College, or other two-year schools with a similar curriculum, and who will then transfer to Chadron State College to complete a Bachelor of Science degree in Rangeland Management. A student must complete the following program in addition to the Core and the CSC Essential Studies Requirements. See an agriculture advisor on the Chadron State College campus for the courses to be taken at Chadron State College.

Code	Title	Credits
Core Requirements		36
FIRE 1810	INTRODUCTION TO WILDLAND FIRE FIGHTING <sup>1</sup>	3
FIRE 1818	WILDLAND LEADERSHIP <sup>1</sup>	3
FIRE 1830	INTERMEDIATE WILDLAND FIRE BEHAVIOR <sup>1</sup>	3
AGRI 436	RANGELAND & FIRE ECOLOGY	3
Upper Division Electives		
Select six credits from the following:		6
AGRI 325	RANGELAND WILDLIFE MANAGEMENT	
AGRI 420	RANGELAND SHORT COURSE	
AGRI 444	GRASS SYSTEMATICS	
BIOL 336 & 336L	GENERAL ECOLOGY and GENERAL ECOLOGY LAB	
BIOL 337	ENVIRONMENTAL MANAGEMENT	
GEOS 321	INTRODUCTION TO GPS	
GEOS 322	INTRODUCTION TO GIS	
Total Credits		54

<sup>1</sup> Classes with the FIRE prefix here are only available at Casper College.

See Essential Studies transfers for electives to take at Casper College to meet the Essential Studies required by CSC. See Applied Sciences transfers for courses at Casper College that would meet some of the core requirements. A maximum total of 66 transfer course credits will be applied towards the CSC Bachelor of Science degree. For further information see the Additional Information for Transfer Students section of the CSC Undergraduate Catalog ([www.csc.edu/admissions/transfer/guides.csc](http://www.csc.edu/admissions/transfer/guides.csc) (<http://www.csc.edu/admissions/transfer/guides.csc>)).

### Rangeland Livestock Management Option

A student must complete the following program in addition to the Core and the Essential Studies requirements.

Code	Title	Credits
Core Requirements		36
AGRI 333 & 333L	RUMINANT PRODUCTION and RUMINANT PRODUCTION LAB	4
AGRI 337	APPLIED ANIMAL NUTRITION	3
AGRI 440	RANGE LIVESTOCK REPRODUCTION	3
AGRI 447	ANIMAL BREEDING AND GENETICS	3
Animal Science Elective		
Select one of the following:		3-4
AGRI 221	FARM AND RANCH MANAGEMENT	
AGRI 338	LIVESTOCK EVALUATION	
AGRI 357	GRAZING ECOLOGY	
AGRI 427 & 427L	ANIMAL ANATOMY & PHYSIOLOGY and ANIMAL ANATOMY & PHYSIOLOGY LAB	
Business Elective		
Select one of the following:		3
ACTG 241	ACCOUNTING PRINCIPLES I	
ECON 231	MACROECONOMICS	
ECON 232	MICROECONOMICS	
AGRI 330	AGRICULTURAL ECONOMICS AND AGRIBUSINESS	
AGRI/ECON 423	AGRICULTURAL POLICY	

FIN 330	PRINCIPLES OF FINANCE
Total Credits	55-56

### Recommended Electives

In order to enhance employment opportunities, the following elective courses are recommended:

Code	Title	Credits
AGRI 335	HORSE PRODUCTION	3
AGRI 420	RANGELAND SHORT COURSE	2
AGRI 436	RANGELAND & FIRE ECOLOGY	3
AGRI 451	HUMAN DIMENSIONS OF WILDLIFE MANAGEMENT	3
GEOS 321	INTRODUCTION TO GPS	1
GEOS 322	INTRODUCTION TO GIS	3

### Rangeland Wildlife Management Option

A student must complete the following program in addition to the Core and the Essential Studies requirements.

Code	Title	Credits
Core Requirements		36
AGRI 235	INTRODUCTION TO WILDLIFE MANAGEMENT	3
AGRI 325	RANGELAND WILDLIFE MANAGEMENT	3
AGRI 426	WILDLIFE RESEARCH AND MANAGEMENT TECHNIQUES	3
AGRI 435	WILDLIFE MANAGEMENT PRACTICUM	3
AGRI 445 & 445L	MAMMALOGY and MAMMALOGY LAB	3
AGRI 451	HUMAN DIMENSIONS OF WILDLIFE MANAGEMENT	3
BIOL 401 & 401L	ORNITHOLOGY and ORNITHOLOGY LAB	3
Total Credits		57

### Recommended Electives

To enhance employment potential, students are recommended to take courses from the following:

Code	Title	Credits
AGRI 324	WILDLIFE AND LIVESTOCK DISEASE MANAGEMENT	3
AGRI 427 & 427L	ANIMAL ANATOMY & PHYSIOLOGY and ANIMAL ANATOMY & PHYSIOLOGY LAB	4
AGRI 436	RANGELAND & FIRE ECOLOGY	3
GEOS 321	INTRODUCTION TO GPS	1
GEOS 322	INTRODUCTION TO GIS	3
MATH 138	APPLIED CALCULUS	3
MATH 232	APPLIED STATISTICS	3
Recommended Biology Electives		
BIOL 139 & 139L	GENERAL BIOLOGY: ZOOLOGY and GENERAL BIOLOGY: ZOOLOGY LABORATORY	4
BIOL 337	ENVIRONMENTAL MANAGEMENT	3
BIOL 343 & 343L	PARASITOLOGY and PARASITOLOGY LAB	3
AGRI 399	RANGELAND ECOSYSTEM FIELD STUDY	3
BIOL 427	BIOLOGY OF POPULATIONS	3

BIOL 431 & 431L	ENTOMOLOGY and ENTOMOLOGY LAB	3
BIOL 444 & 444L	LIMNOLOGY and LIMNOLOGY LAB	3
AGRI 411	CONSERVATION BIOLOGY	3

### Rangeland Equine Management Option

A student must complete the following program in addition to the Core and Essential Studies requirements.

Code	Title	Credits
Core Requirements		36
AGRI 329	AGRICULTURAL MARKETING	3
AGRI 221	FARM AND RANCH MANAGEMENT	3
AGRI 335	HORSE PRODUCTION	3
AGRI 346 & 346L	EQUINE COMMUNICATIONS I and EQUINE COMMUNICATIONS I LAB	3
AGRI 347 & 347L	EQUINE COMMUNICATIONS II and EQUINE COMMUNICATIONS II LAB	3
AGRI 429	EQUINE INDUSTRY APPLIED FIELD STUDIES	3
Animal Science Elective		
Select one of the following:		3
AGRI 324	WILDLIFE AND LIVESTOCK DISEASE MANAGEMENT	
AGRI 337	APPLIED ANIMAL NUTRITION	
AGRI 357	GRAZING ECOLOGY	
AGRI 390	INTERNSHIP IN AGRICULTURE/RANGE MANAGEMENT	
AGRI 447	ANIMAL BREEDING AND GENETICS	
Total Credits		57