



Fundamental Natural Resources

Career Cluster	Agriculture, Food and Natural Resources
Course Code	18504
Prerequisite(s)	Recommended: Introduction to AFNR
Credit	0.5 or 1.0
Program of Study and Sequence	Cluster course – Fundamental Natural Resources – Advanced Natural Resources or Wildlife and Fisheries
Student Organization	National FFA Organization
Coordinating Work-Based Learning	Job shadowing, mentoring, internships, entrepreneurship, service learning, workplace tours, apprenticeship, school-based enterprises, Supervised Agricultural Experience (SAE)
Industry Certifications	OSHA 10 Hour Safety Certification (General Industry), National Career Readiness Certificate (NCRC)
Dual Credit or Dual Enrollment	None
Teacher Certification	Agriculture Food and Natural Resources Cluster Endorsement; Natural Resources and Environmental Service Pathway Endorsement; *Agriculture Education
Resources	

Course Description:

People depend on natural resources. Regions, cultures, nations, and societies are shaped by how people use land, water, plants, and wildlife. South Dakota’s natural resources – minerals, forests, ranges, wetlands, lakes, rivers, soils, along with all connected domestic and native plant and animal communities – play an important role in its economic health, including mining, agriculture, outdoor recreation, and tourism. The large and small ecosystems that make up the environment are complex. Fundamental Natural Resources provides students with an overview of the planet’s natural resource systems, along with examining those resources unique to South Dakota. Students will explore and develop a basic understanding of how the systems relate to one another other. Students will consider the roles people play in, and the occupations related to, managing, using, protecting, and conserving natural resources. Classroom and laboratory content should be enhanced by utilizing up to date equipment and technology, such as Geographic Information System (GIS) software. Biology, statistics, algebra, English, and human relations skills will be reinforced throughout the course. Opportunities for application of clinical and leadership skills are provided by participation in FFA activities, conferences and skills competition such as sales related career development events and proficiency awards. Each student will be expected to maintain a Supervised Agricultural Experience (SAE) Program/Internship.

Program of Study Application

Fundamental Natural Resources is a first pathway course in the Agriculture, Food and Natural Resources cluster, Natural Resources and Environmental Science Systems pathway. Fundamental Natural Resources would follow a cluster course and would prepare a student to participate in either Advanced Natural Resources or Wildlife and Fisheries.

Course Standards

FNR 1: Examine the importance of resource and human interrelations to conduct management activities in natural habitats.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
One Recall	FNR 1.1 Explain resource management components to establish or enhance relationships in natural resource systems.	
Level 3 Strategic Thinking	FNR 1.2 Apply Geographic Information Systems (GIS) skills to natural resource activities.	
Two Skill/Concept	FNR 1.3 Examine planning data to determine natural resource status.	
One Recall	FNR 1.4 Discuss weather and other criteria to recognize dangers related to work in an outdoor environment.	

Notes

FNR 2: Interpret scientific principles of natural resource management activities.

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
One Recall	FNR 2.1 Identify and classify plant- and animal-based natural resources.	
Two Skill/Concept	FNR 2.2 Identify natural cycles and related phenomena to describe ecologic concepts and principles.	
One Recall	FNR 2.3 Describe soil compositions and properties.	
One Recall	FNR 2.4 Examine wetland, watershed and groundwater properties, classifications and functions.	
Two Skill/Concept	FNR 2.5 Discuss forestry management techniques.	

Notes

FNR 3: Describe production practices and processing procedures for natural resources

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
One Recall	FNR 3.1 Describe how natural resource products are produced, harvested, processed and used.	

Notes

FNR 4: Explain responsible practices to protect natural resources

<i>Webb Level</i>	<i>Sub-indicator</i>	<i>Integrated Content</i>
One Recall	FNR 4.1 Describe techniques and equipment needed to manage and conserve natural resources.	
Two Skill/Concept	FNR 4.2 Discuss animal and plant disease symptoms and prevention.	
One Recall	FNR 4.3 Recognize insect types and available controls to prevent insect infestation.	

Notes