



**Course Title: Natural Resources II**  
**Course #: ENV-289-01**

**Credit Hours: 4**  
**Semester: Spring 2022--COVID**  
**Cap: 12**

**Faculty:** Steven Chischilly

**E-mail:** [schischilly@navajotech.edu](mailto:schischilly@navajotech.edu)

**Office:** Rm 301

**Office Phone:** X4147

**Office Hours** (face-to-face or online): 12-1pm, Daily or as arranged

**Preferred Communication** (email and/or text; will respond within 24 hours): email

**Modality** (face-to-face, hybrid, or online): hybrid

**Class Location and Meeting Times** (if face-to-face): Rm 301, Env Science classroom

**Meeting Hours and Online Hours** (if hybrid): 930AM-11AM, M,W, F

**Required Materials: Jump drive, Calculator**

**Textbooks:**

Range Management by Jerry L. Holechek and Carlton H. Herbel, 5<sup>th</sup> Edition,

Forest Measurements by Thomas Eugene Avery and Harold Burkhold

Braiding Sweetgrass (for book review)

**Tools:** None

**Lab Fee (if applicable): \$100 per student**

**Mission, Vision, and Philosophy**

*Mission:* Navajo Technical University honors Diné culture and language, while educating for the future.

*Vision:* Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

*Philosophy:* Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íina (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities.

**Course Description:** This class is an extension of the fall semester class entitled Natural Resources I. We will continue to study the theories and concepts associated with timber, wildlife, and range management as it is applied in the world of work, but we will also include livestock breeds including cattle, horses, and sheep breeds, their natural history, breed development, and value in agriculture. We will take time to learn some detailed concepts of statistics when we study forest management, real life measurements will be made and these data will be used in obtaining statistical values such as the mean, standard deviation, sum of squares,

correlation coefficient, and probability. We will be taking day long field trips joining GIT classes and students to conduct an inventory and analysis of forest resources for wildlife habitat, forest regeneration, anthropomorphic encroachment, water presence, quality, and quantity.

<b>COURSE OUTCOMES</b>	<b>COURSE MEASUREMENTS</b>	
Understand how rangeland data is collected and used by managers	Collect and sample rangelands in the Crownpoint vicinity, showing differences in composition and density.	
Show how energy flows through an ecosystem and populations	Using diagrams, show how energy from the sun is the driving force for almost all life on Earth	
Understand basic statistics	Collect and utilize real life statistical data to calculate statistical measures	
Understand wildlife reproduction and survival	Explain and draw out exponential and linear growth models	

**Connections to Program Assessment (Course-Embedded Measures)**

**Course Activities**

<b>Week</b>	<b>Date</b>	<b>Class Topics/Reading Due</b>	<b>Assignments Due</b>	<b>Assessments</b>
1	RM1; FM TBA for sem.	Read, Questions and Defs (QD)	Lab- (Science Poster- Endemic Plant or Animal Navajo Uses)	
		<b>Last day to add/drop</b>		
2	RM1; FM TBA for sem.	Read, Questions and Defs (QD)	Lab-	RM1; FM TBA for sem.
3	(Science Poster- Endemic Plant or Animal Navajo			(Science Poster- Endemic Plant or Animal Navajo Uses)

	Uses)			
4	RM1; FM TBA for sem.	Read, Questions and Defs (QD)	Lab-	RM1; FM TBA for sem.
5	RM1; FM TBA for sem.	Read, Questions and Defs (QD)	Lab-	RM1; FM TBA for sem.
		<b>Graduation Petition due</b>		
			<b>Midterm</b>	
		<b>Midterm grades due</b>		
6		RM3; FM	Read, Study, QD	Quiz 3, L-Cattle
7		RM4; FM	Read, Study, QD; P3	Homework, L- Cattle/SP DUE, P3 Summary
		<b>Last day to withdraw with “W”</b>		
8		RM5; FM	Read, Study, Problems; P4	Homework, L- Cattle EPDs, P4 Summary
9		RM5; FM	Read, Study, Problems; P5	Quiz 4, L-Cattle EPDs; P5 Summary
10		RM6; FM	Read, Study, Problems; P6	Homework, L- Horse Breeds;
11		RM6; FM	Read, Study, Problems; P6	Quiz 5, L-Horse Breeds; BR Draft DUE; P6 Summary
12		RM6; FM	Read, Study, P7 Problems	Homework, L- Sheep Breeds; P7 Summary
13		RM7/Book Review Due	Read, Study, Problems	Quiz 6, L-Sheep Breeds, <b>BR DUE</b>
14		RM8	Read, Study, Problems, QD	Prepare one page of notes for the Final Exam
15		Review	STUDY	
16		<b>Project Presentation</b>		
17			<b>Finals</b>	
		<b>Grades due to the Registrar</b>		
		<b>Graduation</b>		

### Grading Plan

Homework: 35%

Class Participation: 10%  
Book Review: 20%  
Quizzes/Exams: 35%

A = 100-90%  
B = 89-80%  
C = 79-70%  
D = 69-60%  
F = 59% or less

### **Grading Policy**

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

### **Participation**

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

### **Cell phone and headphone use**

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

### **Attendance Policy**

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. **Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.**

### **Study Time Outside of Class for Face-to-Face Courses**

**For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.**

### **Study Time for Hybrid or Blended Courses**

**For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.**

## **Study Time for Online Courses**

**For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.**

## **Academic Integrity**

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. **The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.**

## **Diné Philosophy of Education**

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íina and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwí Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwí core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumola:wa (honesty and trustworthiness), and hon kohoł lewuna:wediyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

## **Students with Disabilities**

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<http://www.navajotech.edu/student-services#accomodations-services>) in accordance with the university's Disability Accommodations Policy (see [http://www.navajotech.edu/images/about/policiesDocs/Disability\\_Exhibit-A\\_6-26-2018.pdf](http://www.navajotech.edu/images/about/policiesDocs/Disability_Exhibit-A_6-26-2018.pdf)).

## **Email Address**

Students are required to use NTU's email address for all communications with faculty and staff.

## **Final Exam Date:**