



Syllabus: Bio 109N Natural History of the Southwest

Course Information

Course Title: Natural History of the Southwest

Course Prefix/Number: BIO 109N

Semester: Fall 2020

Class Days/Times: Tuesday/Thursday 9-11:30

Credit Hours: 4

Instructor Information

Name: Kea Skeate

Phone/Voice Mail: available on request

E-mail: kskeate@tocc.edu

Office location: N/A

Office hours: by appointment

Course Description

Study of the common plants and animals of the southwest. Includes their distribution, adaptation, behavior and ecology. Also includes physical geography and geological principles of the region.

Student Learning Outcomes

After completion of the course students will be able to

1. Apply basic geological principles to interpret the physical setting of the Southwest.
2. Apply meteorological and biological principles to describe the formation of the major biotic communities in the Southwest.
3. Describe major desert adaptations and the process of natural selection.
4. Identify common plants and animals of the Southwest.
5. Demonstrate skills necessary for life-long learning of natural history, including conducting scientific research.

Course Structure

The theme of this course is the O'odham Ni'oki (the language) and T-ki:dag (our home, the land). We explore and connect more deeply with T-ki:dag by learning about the plants and

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animals of the Sonoran desert including their habitat. We learn and reinforce O’odham Ni’oki by learning the names of plants and animals both in O’odham and in English. During this course, the students will also have an opportunity to compare and contrast the O’odham way of knowing and scientific methodology. They will incorporate traditional knowledge into their interpretive exhibit and presentation.

This course is the integrated version of the course where the lecture and labs are taught simultaneously. The lecture portion of this course consists of eleven units with one to two PowerPoint lectures, a study guide and a quiz. In addition, there will be assigned readings, films, activities, and discussions. This course includes two projects: an individual field research project and a class project on phenology—the study of the timing of biological events. The course also includes identification quizzes on the names of common plants and animals of the Sonoran Desert.

Course Learning Materials and Textbook Information

A Natural History of the Sonoran Desert by Arizona-Desert Museum

Web Resources:

- *TOCC Plant Atlas* (<http://toccatlas.plantpress.net/>)
- *Desert Ecology of Tucson* website by Brad Fiero: (<http://wc.pima.edu/~bfiero/tucsonecology/index.htm>)
- Online resources on CANVAS

Courses Outline and Important Dates

See CANVAS for dates

- I. Science
- II. Physical Geography of the Southwest
 - A. Formation
 1. Geological principles
 2. Geological history of the southwest
 - B. Climate
- III. Biotic Communities of the Southwest
 - A. The four deserts
 - B. Other biotic communities
- IV. Desert Adaptations
 - A. Natural selection as a mechanism
 - B. Plants
 - C. Animals

- V. Common Plants and Animals
 - A. Interrelationships
 - B. Identification and natural history
 - 1. Plants
 - 2. Invertebrates
 - 3. Fish, amphibians, reptiles
 - 4. Birds
 - 5. Mammals

Evaluations and Grading & Assignments:

90 and above is an A

80 - 89 is a B

70 - 79 is a C

60 - 69 is a D

Under 60 is Failing

Your grade will be determined by the following:

Evaluation	Points	Percent of Total Points
Quizzes**	200 points (10 @ 20 points)	20%
Identification Quizzes	100 points	10%
Guided walks, Reflections, Videos	220	22%
Labs	160 (8 @ 25 points)	16%
Interpretive Project	130 points	13%
Phenology Project	130 points	15%
Attendance	40	4%
Total	1000 points	100%

**You may drop your lowest quiz.

Himdag Cultural Component

Tohono O'odham traditions and cultural beliefs will be discussed as relevant course topics, and only as appropriate to the Tohono O'odham Nation's traditional standards for sharing information as determined by the Himdag committee.

Policies and Expectations

Attendance Policy

You are expected to arrive to Zoom class on time and be prepared to participate in each class period. Four unexcused absences may result in withdrawal and a "W" or "Y" will be recorded.

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You may request to be excused from class for religious observances and practices, for illness, for school or work-related travel or for personal or family emergency. If you will be absent, please notify the instructor as soon as possible (approved by Faculty Senate April 2014).

Incomplete Policy

Incomplete (I) grades are not offered for this online class.

Instructor Withdrawals

Students who have missed four consecutive classes (or the equivalent) not submitted any assignments nor taken any quizzes by the 45th day census report, due on October 8th, are assumed NOT to be participating in the class and may be withdrawn at the faculty member's discretion.

Student Withdrawals

Students may withdraw from class at any time during the first 2/3 of the semester without instructor permission and without incurring any grade penalty. Please be sure to withdraw yourself by November 9th if you do not expect to complete the class, otherwise you may receive an "F" grade.

Special Withdrawals (Y) Grade

The "Y" grade is an administrative withdrawal given at the instructor's option when no other grade is deemed appropriate. Your instructor must file a form stating the specific rationale for awarding this grade. "Y" grades are discouraged since they often affect students negatively. Your instructor will not award a "Y" grade without a strong reason.

Equal Access Statement/Disability Accommodations

Tohono O'odham Community College seeks to provide reasonable accommodations for qualified individuals with disabilities. The College will comply with all applicable regulations, and guidelines with respect to providing reasonable accommodations as required to ensure an equal educational opportunity. This process includes self-identifying as a student with a disability, providing supporting documentation of their disability, and being approved for services through the Disability Resources Office (DRO). It is the student's responsibility to make known to their instructor(s) the student's specific needs within the context of each class in order to receive appropriate accommodations. We will work together in order to develop an accommodation plan specifically designed to meet the individual student's requirements.

For more information or to request academic accommodations, please contact: Anthony Osborn, TOCC Disabilities Resource Coordinator, aosborn@tocc.edu, or 520-383-0033 for additional information and assistance.

Title IX

Tohono O'odham Community College encourages each student to have the knowledge and skills to be an active bystander who intervenes when anyone is observed or being harassed or

endangered by sexual violence. Sexual discrimination and sexual violence can undermine students' academic success and quality of life on campus and beyond. We encourage students who have experienced or witnessed any form of sexual misconduct to talk about their experience and seek the support they need.

Confidential support and academic advocacy can be found with: Student Services Title IX Coordinator/Counselor, Alberta Espinoza, M.Ed. located in I-We:mta Ki: Room 18. Phone 520-383-0033 email: aespinoza@tocc.edu

Conduct: Bias, Bullying, Discrimination and Harassment

Tohono O'odham Community College faculty and staff are dedicated to creating a safe and supportive campus environment as a core value. Harassment based on age, class, color, culture, disability and ability, ethnicity, gender, gender identity and expression, immigration status, marital status, political ideology, race, religion/spirituality, sex, sexual orientation, and tribal sovereign status will not be tolerated.

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