**Biology 847-01—Desert Biology**

 **(3 cr hrs)**

**Spring 2026**

**Instructor**: Dr. Keith Geluso (please feel free to call me Dr. G. or just “Keith”)

Office: Bruner Hall of Science (BHS) Room 322

Phone: (308) 865-8982 office; cell (308) 440 3430

E-mail: **gelusok1@unk.edu** (email is the best way to get ahold of me)

**Office Hours:** By appointment, arranged in advance (**just send me an email**), is likely best because for most this may entail a phone call, as this is an online class. I’m in my office MWF 900-950 for walk-ins but phone calls are also welcome at this time. If someone is already in the office, I will let you know and have to call you back. I am open to phone calls during the evening, and possibly on weekends to fit everyone’s schedule; **BUT FIRST** just drop me an email so we can set up a time! Some days I may be unavailable and not check emails etc. due to field research or other obligations, so I may not check email for 24 hours, but that is rare. I have research in NE that I’ll take trips to Fri-Sun during the semester.

**Lectures**: Online Class. Some lectures will be prepared by me and available for viewing via Voice Thread, but much of the class entails reading and watching preparing short (recorded) mini-lectures and write-ups on areas of your interest regarding desert biology. As you will read below, this is **NOT** a lecture-driven class where you would be responsible for regurgitating large quantities of facts on exams. My graduate classes, especially special topic classes (i.e., those not required for all students), were graduate-student driven; I will structure this class in such a manner.

**Textbook**: None. We will read peer-reviewed scientific literature and prepare presentations from such papers on topics of your interest, as this is a graduate-level class.

**Prerequisites:** None.

**Catalog Description:** This course will cover the biology, ecology, and natural history of desert ecosystems. Focus will be on why deserts occur where they do on the earth and all the adaptations organisms have to survive in this harsh environment.

**Course Overview**: From plants to animals, from rivers that flow through arid lands to desert oases, from plant-animal interactions to ecosystem functions, from exotic species to keystone species, from climate to precipitation, we will survey different topics related to desert biology. I will select some topics to present upon, but others will be of your interest. We will discuss potential topics in the first week of the class.

**Course Objectives**:

* Become familiar with different aspects of desert biology focusing on the American Southwest

 (but if you want to go beyond North America, by all means please feel free to do so!)

* Demonstrate ability to use vocabulary needed to understand and converse about deserts
* Understand the role of humans in desert ecosystems
* Become readily familiar with finding papers in the primary literature
* Read, evaluate, discuss, and present information from journal articles
* Summarize information from primary literature with written and oral communication skills
* Listen and learn from other student presentations as well as discuss and comment on talks

**Course Policies:**

*Participation*: Students are expected to participate in all class readings, writing assignments, exams, and oral presentations. Participation will be evaluated by me, the professor. Failure to contribute in a meaningful way will result in a grade reduction based on my professional judgment.

*Absences*: If you are ill or have another extenuating circumstance during the semester where you cannot participate in online-class activities please let me know. Neither absence nor notification of absence relieves the responsibility for meeting all course requirements. All readings, oral presentations, and written assignments are a course requirement. **Items missed due to unexcused absences cannot be made up**. It is recognized that unavoidable situations do arise that are legitimate excuses for absence (i.e., lack of participation with the online structure of the course). Severe injury, hospitalization, death in the immediate family, illness, other unexpected family obligations are all acceptable reasons for absences. Final determination of the acceptability of an absence is my prerogative. Please inform me ASAP of such absences.

*Student code of conduct*: As is standard procedure in all university classes, this course follows the rules and procedures outlined in the UNK Student Handbook. Cheating, plagiarism, harassment, and abuse of academic materials or equipment will not be tolerated and the consequences for violating the code can be serve, ranging from a zero on an assignment or exam to failing the course and expulsion from the university.

**Withdraw (W) and Incomplete (I) Grades:**

Until conclusion of the 12th week of the semester at 4:30 p.m., you may withdraw from any class and receive a grade of "W." THIS SEMESTER THE DATE IS 3 April. An Incomplete (I) is issued only if circumstances **beyond your control** (for example, hospitalization during finals week) prevent you from completing the required work for the class by the end of the semester. Circumstances preventing you from finishing the class **must have arisen after the withdraw deadline**; otherwise a grade of “W” is appropriate and an “I” is not appropriate. An Incomplete grade will give you an extension to complete outstanding work only; it is not an opportunity to "start over" in the class. A contract must be signed outlining a timeline for completing the work, and all outstanding work must be completed within 1 year or the "I" grade automatically converts to a failing grade. Conversion of an “I” grade to a failing grade is university policy and is completely out of the control of the instructor. **You must have a passing grade (a 60% or greater) to be considered for an “I” in this class.**

**Grades:** Grades will be assigned using the grading scale: A (92-100%), A- (90-91%), B+ (87-89%), B (82-86%), B- (80-81%), C+ (77-79%), C (72-76%), C- (70-71%), D+ (67-69%), D (62-66%), D- (60-61%), and F (below 60%). Grade assignments are final unless a calculation error exists.

Grades will be determined by the following rubric (**There is no extra credit; do not ask for it!**)

 Presentation #1 and write up 15% of total grade

 Presentation #2 and write up 35% of total grade

 Meaningful participation in discussions (Voice Thread) 25% of total grade

 Written assignments (this might also include a 5 min talk) 5% of total grade

 Exams (Midterm 25 pts and Final 75 pts) 20% of total grade

The way I calculate grades is by weighted average, where I add up all the points earned in the above categories out of the points possible, and then I multiply by the percentage shown above. At this point, I do not know how many points we might have in each category, as I like to have flexibility in assignments given throughout the semester.

**Assignments etc.:** I will open a new module in Canvas every two weeks at the same time for new assignments, except for the first week. This time will be no later than Mondays by 5:00 pm central time. If the module is ready to go, I’ll likely open it early or mid-morning on Monday. More details to come on specifics of assignments.

**Due dates:**  We will have the same biweekly “due date” for all assignments, unless explicitly stated otherwise. All assignments, posts, presentations, etc. will be due at 11:59 pm Central Time on the last Sunday of the two-week period, unless otherwise stated. The one major exception will be Week 1 where assignments will be due by Sun (18 Jan.) at 11:59 pm Central Time. Weeks 2 and 3 assignments will be due during the end of 3rd week of class on Sunday 1 Feb. at 11:59 pm Central Time. (Note: Nebraska is a state that follows Daylight Savings time, so on 8 March, we will put our clocks forward to start Daylight Savings).

**Late assignments:** For each day late, 10% of the grade will be taken off. If an assignment is over 7 days late, you will receive no credit for it.

**Virtual Classroom Protocol:** Communication with instructor: All correspondence should be through email (at first). If you email me, I will generally try to respond within 24 hours on workdays. On weekends, I may not check emails, so some replies will be addressed on Monday or at the latest Tuesday. If you would like to speak to me directly on the phone, it is often **best** to set up an appointment via email. Again, I am very open to phone calls; I find it much easier to talk rather than attempting to write everything out! If you are in town, on-campus, or nearby, please feel free to come and talk in person. I will let you know in advance if I will be unavailable to respond to emails for multiple days in a row, for example, if I must go out of town for field research.

**Respect and Professionalism:** Although this is an online course, many of our interactions will occur via Canvas, Voice Thread, and emails. Thus, we will have interactions with one another throughout the semester. It is important and required that you always be respectful of others in the virtual classroom. All thoughtful and professional opinions and comments are welcome. Students should try to have a positive attitude and willingness to listen to and consider other opinions. Students who are unable to act in a professional manner will be docked for specific assignments and for overall participation.

**Additional University Policies and Information**

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**Students with Disabilities:** It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students with documented disabilities. To receive accommodation services for a disability, students must be registered with the UNK Disabilities Services for Students (DSS) office, 175 Memorial Student Affairs Building, 308-865-8214 or by email unkdso@unk.edu

Once you have an accommodation plan through UNK Disabilities Services office, you must review it withmeso we can make any arrangements necessary for your learning. No accommodation will be provided until an Academic Accommodation Plan is in place and *signed by me*. Please remember plans are not retroactive and cannot be used for assignments or events prior to the date of our signing of the formal Academic Accommodation Plan. Any student needing or seeking accommodation associated with exams must have the accommodation approved *as soon as possible* and needs to meet with Dr. Geluso in his office two days prior to exams.

**UNK Undergraduate Student Attendance Policy**

Your instructor may have indicated on their syllabus an attendance policy specific to their class (yes, I have, see above). If so, that is the policy with which you must comply. If no other policy is stated, the University-wide attendance policy will apply.  [Undergraduate Student Attendance Policy](https://catalog.unk.edu/undergraduate/academics/academic-regulations/student-attendance-policy-statement/): Students are expected to attend all meetings of classes for which they are registered, including the first and last scheduled meetings and the final examination period. Instructors hold the right and responsibility to establish attendance policies for their courses. Each instructor must inform all classes at the beginning of each semester concerning their attendance policies.

Participation in official University activities, serious health concerns, personal emergencies, and religious observances are valid reasons for absence from classes. Students are responsible for informing their instructors prior to their absence(s) from class and for completing assignments missed during their absence(s). No adverse or prejudicial effects shall result to any student with a documented, excused absence.

Questions may be directed to the Dean of Student Affairs office or to Student Health & Counseling.

**Academic Honesty Policy**

Academic honesty is essential to the existence and integrity of an institution of higher education. The responsibility for maintaining that integrity is shared by all members of the academic community. To further serve this end, the University of Nebraska at Kearney has a policy relating to academic integrity. See this on the UNK website: [Undergraduate Academic Integrity Policy](https://catalog.unk.edu/undergraduate/academics/academic-regulations/academic-integrity-policy/)

**Finals Week Policy**

Finals at UNK will be scheduled Monday through Thursday during the last week of the semester.

1. Final examinations for full semester classes are to be given at the regularly scheduled examination time only as published on the Office of the University Registrar website policy ([Final Exam Schedule](https://www.unk.edu/offices/registrar/academic_policies_handbook/Final_Exam_Schedules.php)).
2. During the week prior to Final*s* Week, the only examinations that may be given are laboratory practical examinations, make-up or repeat examinations, and self-paced examinations.
3. If a student is scheduled to take three or more final exams in one day during the finals week, the student has the following options take all final exams as scheduled; take the exam during the allotted day and time that is open for make-up examination or resolution of conflict, which is Thursday at 3:30 pm; or take the exam during Finals Week at an agreed-upon time worked out between the student and the instructor. Students seeking accommodation are responsible for notifying their instructor at least one week before the final exam period and providing documentation proving eligibility for accommodation.
4. Projects, papers, performances*,* and speeches scheduled for completion during the last week of classes must have been assigned in writing by the end of the eighth week of the semester. This refers to the project and its scope, not the topic.
5. Complaints about failure to follow the above outlined procedures should be made immediately to the faculty member. If the faculty member is not responsive to the student’s concerns, the appropriate department chair should be notified. If necessary, appeals can be filed with the dean of the college offering the course*.*
6. Any course not having an examination during Finals Week will meet under the direction of its instructor during the scheduled Finals Week time period for a continuation of regular class work.
7. The dean may grant exceptions to this policy on the basis of good and sufficient reasons submitted to the dean in writing.
8. Faculty should include a Finals Week Policy statement indicating that “The final exam will be administered in the time period scheduled during finals week in accordance with University policy ([Final Exam Schedule](https://www.unk.edu/offices/registrar/academic_policies_handbook/Final_Exam_Schedules.php)).”

### Mental Wellness

The UNK Counseling Center provides mental health services to support the academic success of students. The Counseling Center provides a full range of short-term professional mental health services. Getting help is a smart and courageous thing to do. Contact the UNK Counseling Center at 308-865-8248 or visit their website for more information: <https://www.unk.edu/offices/counseling_healthcare/counseling_care/index.php>

### Military and Veteran Services

Military and Veteran Services assist veterans, service members, and their dependents with education benefits and academic and supporting resources. They serve as a liaison between students and the Veterans Administration and branches of the military.  Contact the UNK Military and Veteran Services office at 308-865-8677 or visit their website for more information: <https://www.unk.edu/offices/financial_aid/veterans_services/index.php>

### Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes they may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

* **Local Domestic Violence, Sexual Assault Advocacy Agency**308-237-2599
* **Campus Police (or Security)**308-865-8911
* **Title IX Coordinator**308-865-8655

Retaliation against the student making the report, whether by students or University employees, will not be tolerated.

### Students Who are Pregnant

It is the policy of the University of Nebraska at Kearney to provide flexible and individualized reasonable accommodation to students who are pregnant. To receive accommodation services due to pregnancy, students must contact the Student Health office at 308.865.8218. The following links provide information for students and faculty regarding pregnancy rights. <https://thepregnantscholar.org/title-ix-basics/>

<https://nwlc.org/resource/faq-pregnant-and-parenting-college-graduate-students-rights/>

**UNK Policy for Inclusive Excellence**

**At UNK, inclusive excellence is rooted in our values.**

* **People matter.** The diversity of our students, faculty and staff is essential to our educational mission. Our backgrounds, identities, and lived experiences enrich our learning community.
* **The learning environment matters.** We are committed to an inclusive and equitable student-centered learning environment. In our classrooms we exchange ideas and opinions with respect for one another.
* **Learning matters.** Preparing students to value critical thinking, mutual respect, and open communication is essential for lifelong learning. We are building a community that protects and fosters intellectual inquiry and embraces diverse perspectives.

The following link provides information for students regarding UNK’s commitment to inclusive excellence and procedures for improving classroom experience with inclusion and belonging: <https://www.unk.edu/about/dei/inclusive-excellence-in-the-classroom.php>.

**Tutoring & Academic Support**

The UNK Tutoring & Academic Support offers support for this course. These folks are located in the Loper Success Hub on the 2nd floor of the C.T. Ryan Library. The [Loper Success Hub](https://www.unk.edu/offices/loper-success-hub/index.php) is a student-focused environment on the 2nd floor of the Calvin T. Ryan Library, dedicated to academic support, success, and retention. The Hub will unify Academic Advising & Career Development, Disability Services for Students, TRIO – Student Support Services, Kearney Bound Scholars, First-Generation Student Support, Tutoring, and Success Coaching. The Hub is a place and system for students to connect to university resources, staff, and peers who support them, providing a holistic approach to student learning and support. You can contact the Loper Success Hub at successhub@unk.edu or 308-865-8728.

**Tentative Lecture/Class Schedule:** At this time, I am not going to show a detailed schedule, as I need to make sure I know the final count in the class for scheduling presentation. Here is a general schedule.

**Week 1 Introduction to Class and Procedures**

 Assignment (Call & Topic Search) due by Sunday 18 Jan. at 11:59 pm (phone calls due~ by 23 Jan)

**Weeks 2 & 3 Geluso’s lectures on Deserts** (These items will be due 1 February at 11:59 pm)

 I will scatter other presentations throughout the semester

 Assignment (see Canvas)

**Weeks 4 & 5** (These items will be due 15 February at 11:59 pm)

 Discussion on presentations from last 2-week block

Student presentations (See list in Weeks 2 & 3)

**Weeks 6 & 7** (These items will be due 1 March at 11:59 pm)

 Student presentations and commenting on videos

**Weeks 8, 9 & 10** (These items will be due 22 March at 11:59 pm but see Midterm due date)

 Student presentations and commenting on videos

 Midterm on Geluso’s presentations and student talks from Weeks 4 & 5

 (Likely open up exam on 8 March and will be Due: 13 March (Fri.) 11:59pm)

**Weeks 11 & 12** (These items will be due 5 April at 11:59 pm)

 Student presentations and commenting on videos

**Weeks 13 & 14** (These items will be due 19 April at 11:59 pm)

 Student presentations and commenting on videos

**Weeks 15 & 16** (Items will be due 3 May at 11:59 pm)

Professional video and commenting on last videos, possible written assignment.

**Finals Week**

Final Exam will be due by Wed. 6 May at 11:59 pm

(I will post by Sunday night 3 May, if not earlier)