

Kansas Natural History Field Expedition

Trip Dates: May 23 – June 4

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Office hours: by appointment

Course Description:

This course provides students who have taken BI 135 or BI 335 Kansas Natural History an opportunity to explore the diverse natural landscapes of Kansas. This is a two-week course, exposing students to each of the major Ecoregions of Kansas via a road camping experience. Students will identify and explore the common and important geological features and plant and animal life found in each of Kansas' 11 major Ecoregions. Note: Students registering for this course should expect to camp regularly in both developed and undeveloped campsites where students will share tents with fellow students. Experiences on the trip may lead to discomfort through exposure to sun, heat, rain, rocks, dirt, biting insects, and physical exertion. As you anticipate these experiences, please carefully consider your attitude and abilities.

Pre-requisite: BI 135 or BI 335 with grade of "C" or higher or permission of instructor.

Required Texts:

- Buchanan RC. 2010. *Kansas Geology: An Introduction to Landscapes, Rocks, Minerals, and Fossils*. University of Kansas, Lawrence, KS. 240 pp. ISBN 978-0700617265
- field notebook – *Rite in the Rain*® Metric Field Notebook N° 363 (4⁵/₈ in x 7 in)
- appropriate field guides for various groups of organisms

Course Objectives:

Students completing this course should be able to:

- Describe and explain the relationships among the basic geological, hydrological, climatological, and ecological systems found in the state of Kansas.
- Use standard field identification guides and keys to identify and document native and exotic species of animals, plants, and rocks found in Kansas landscapes.
- Use standard field science data collection equipment and protocols to describe biotic and abiotic features of Kansas terrestrial and aquatic habitats.
- Keep a standard field journal documenting expedition efforts.
- Conceptualize, describe in detail, and justify a simple field experiment to better understand the relationships between/among biotic and abiotic components of Kansas landscapes.



Grading:

The final grade is calculated on a percentage basis:

Participation in field exercises: physiographical and organismal identification = 10%

Students are expected to participate in field activities by contributing to identification efforts, leading data collection efforts, and by engaging in discussion.

Daily Field Journal Entries = 40%

Students will record a daily entry into their field journal describing the locations and activities undertaken each day. Journal entries should follow guidelines provided during the course and should be complete, thorough, and thoughtful descriptions of the day's activities, including reflections on the ways the daily activities relate to lecture course content.

Site-specific Species Lists = 20%

Each daily field journal entry should be accompanied by a comprehensive list of each species seen at field sites or en route to field sites. Entries should include a short description of the location and habitat of each organism

Field Experiment Proposal = 30%

Each student will propose an experiment to test a prediction from a hypothesis that explains one or more of the natural phenomena witnessed during the field activities in the course. The proposal will include:

- an introduction with background on the system in question supported by a review of primary literature related to the system,
- a clear hypothesis explaining/answering a question that logically follows from the field observations and background literature review,
- a prediction derived from the hypothesis,
- a description of the type of experiment that would be necessary to sufficiently test the prediction. The proposed experiment will include a description of the experimental field site, a description of the sample size and design of the experiment, a list of necessary equipment/supplies, and a description of type of data that would be generated by the test and how that data would be analyzed.

Grade Scale:

A	94-100%	A-	90-93%		
B+	87-89%	B	84-86%	B-	80-83%
C+	77-79%	C	74-76%	C-	70-73%
D+	67-69%	D	60-66%		
F	0-59%				

Attendance/Make-up Policy:

This course is a field expedition requiring that students engage in daily field activities. There is no way to make up this work. Students who suffer from illness or injury during this trip may be able to make up missed activities at the discretion of the instructor, but there is no way to replicate the field experience of the group activities planned for this course. Students who fail to participate in and contribute to at least 70% of the field activities will not pass this course. By its nature, field biologists must remain flexible as weather and extenuating circumstances may dictate changes in plans. Students are expected to be flexible as activities may be modified as unexpected field conditions require.

Students with Disabilities:

Baker University is committed to providing “reasonable accommodations” in keeping with Section 504 of the Rehabilitation Act and the Americans with Disability Act of 1992. Access Services coordinates accommodations and services for all eligible students with disabilities. If you have a disability and wish to request accommodations and have not contacted Access Services, please do so as soon as possible. Access Services is located on the Baldwin City campus in the Office of Student Academic Success (in Collins Library (lower level); 785-594-8352; kathy.wilson@bakeru.edu). Information about Access Services can also be found at www.bakeru.edu/sas. If accommodations have been approved by Access Services, please communicate with your professor(s) regarding your accommodations to coordinate services.

Academic Honesty:

Students are expected to take responsibility for their own work and provide appropriate credit to the authors of works used by the student to complete course work. Students who fail to meet the University’s standard of academic honesty in this course will be subject to course penalties at the discretion of the professor, which may include, but are not limited to, automatic failure of an assignment/assessment and/or failure of the course. In addition to course penalties invoked by the professor, all instances of academic misconduct will be reported to the Dean of the CAS who will invoke mandated institutional sanctions as defined in the Student Handbook. Please review the student handbook for a full description of the University’s policy on academic misconduct.

From the Student Handbook: Baker University expects students and professors to have solely completed or prepared the work or research that bears their name, and to acknowledge the materials and sources of others.

Students

1. Have the responsibility to do their own academic work.
2. Must acknowledge sources of their materials and material that is the work of others.
3. Have the responsibility to inquire of the professor when they are uncertain as to what constitutes proper acknowledgment.
4. Have the responsibility to inquire of the professor as to what materials and aids are permitted in testing and research work.
5. Have an obligation to know their rights and responsibilities as delineated in the Baker University Student Handbook.
6. Have the responsibility to know the University’s position with respect to academic misconduct as set forth in [the student handbook].

Credit Hour Definition and Associated Course Expectations: Consistent with best practices in higher education, Baker University subscribes to the federal definition of the “credit hour” endorsed by the Higher Learning Commission. Driven by intended learning outcomes and verified by evidence of student achievement, the “credit hour” is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom (or direct faculty) instruction and a minimum of two hours of out-of-class student work per week for the duration of the course enrollment period. A 3-credit-hour course, for example, requires approximately 45 classroom contact hours, roughly 90 out-of-class work hours and approximately 135 total instructional hours over the course of a 15-week semester. In that this course is field expedition offered on a condensed schedule, students will meet the credit hour definitions through a combination of on-site field travel experiences (13 days @ 12 hrs. per day = 156 hrs.) and experiment proposal research and draft preparation (15 hrs.) for a total of 171 hrs.



Expedition Preparation & Checklists

gear check-in: 8:00am, May 23, 2022

departure time and date: 10:00 pm, May 23, 2022

return time & date: 4:00 pm, June 4, 2022

As we approach the date of departure for our Summerterm trip, it is a good time to review some of the items you may want to consider bringing with you on this adventure. Please keep in mind that while on this trip we will likely encounter many different weather conditions, from sunny and hot (100's?) to rainy and cool (60's?). While eastern Kansas tends to be very humid during late spring, western Kansas can be very dry. Both of these areas can be very hot or quite cool. This means that you will need to be prepared to be comfortable under all of these conditions. Here are some guidelines that may help:

- pack layerable clothes and outerwear: it's easier to add/remove layers than to change completely
- bring extra underclothes
- bring multiple types of shoes (e.g. close-toed sneakers or sandals for the water, close-toed shoes or boots for the trails, open-toed sandals for campsites)
- bring raingear: lightweight parkas and windbreakers work great as an outer layer; a wide-brimmed hat can be very practical for sun and rain protection
- bring a small daypack or shoulder bag in which to keep sundry items as we spend time away from the van and camp

The following personal items may make your trip more enjoyable, memorable, and educational:

- | | |
|--|---|
| <input type="checkbox"/> pillow | <input type="checkbox"/> hat |
| <input type="checkbox"/> chargers and cables | <input type="checkbox"/> sunglasses |
| <input type="checkbox"/> headphones | <input type="checkbox"/> binoculars |
| <input type="checkbox"/> earplugs | <input type="checkbox"/> camp chair |
| <input type="checkbox"/> swim goggles/snorkel/fins | <input type="checkbox"/> field guides |
| <input type="checkbox"/> sunscreen | <input type="checkbox"/> personal journal |
| <input type="checkbox"/> insect repellent | <input type="checkbox"/> filled medical prescriptions |

Proposed Field Sites and Itinerary (subject to change)

Dates	Subject
Monday, May 23	equipment check-in and orientation (8AM – 10PM) departure for Weston Bend State Park
Monday, May 23 – Wednesday May 25	Weston Bend State Park <ul style="list-style-type: none"> • Glaciated/Loess Hills Region • Fort Leavenworth
Wednesday, May 25 – Friday, May 27	Cross Timbers State Park <ul style="list-style-type: none"> • Crosstimbers, Osage Cuestas, Ozark Plateau Regions • Shermerhorn Park & SE Kansas Nature Center
Friday, May 27 – Sunday, May 29	Sand Hills State Park <ul style="list-style-type: none"> • Flint Hills Region • Tallgrass Prairie National Preserve
Sunday, May 29 – Wednesday, June 1	Barber State Fishing Lake <ul style="list-style-type: none"> • Red/Gypsum Hills, Arkansas Lowlands and High Plains Regions • Cheyenne Bottoms and Quivira National Wildlife Refuge • St. Jacobs Well/Big Basin • Cimarron National Grasslands
Wednesday, June 1 – Friday, June 4	Lake Scott State Park <ul style="list-style-type: none"> • High Plains and Smoky Hills Regions • Smoky Valley Ranch • Little Jerusalem Badlands State Park • Cedar Bluff State Park
Friday, June 4	return Baldwin City, KS