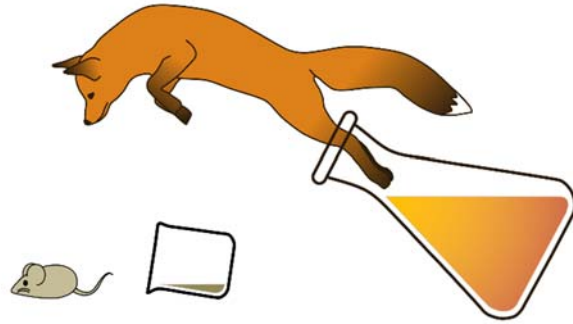


Principles of Biology Online – Fall 2023

Instructor

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Communication

Response Time for Email or In-Course Communication: From 8:00am – 5:00pm (Central Standard Time) Monday-Friday, I will respond within 30 minutes to an hour. After hours and on weekends, I will not check emails as often and while I will likely respond within a few hours at most, it may be the next day (or even the next working day) before I am able to get back to you.

Response Time for Voice Mail: I no longer have voice mail on my office phone, but should be in most of each day. However, email is usually the quickest way to contact me.

Office Hours

Office hours are a time that I have set aside to visit with you. My office hours this semester are from 930 am to 1130am (Central Standard Time) on Thursdays. A zoom link will be provided and you can log in to visit. I am also happy to arrange private zoom discussions about any time if you let me know 24 hours ahead of time. You can send me an email with the details of your questions, as well as your contact information and the best times to reach you.

Note: If you have course specific questions that are not addressed in this document, I am happy to help. However, for technical (computer related) questions, it is best to call the IT Help Desk at 785-532-7722 or email helpdesk@ksu.edu.

A Little About Me

I am a Teaching Professor in the Division of Biology at Kansas State University and have been teaching Principles of Biology since 1997. I have also been involved in many of the updates to the course, including the interactive parts of the material you will be using in this class. My field of research is Behavioral Ecology, with a secondary specialty in Herpetology. This means that I am interested in the behavior of reptiles and amphibians as they interact with the environment around them. I have also recently developed an interest in the territorial behavior of dragonflies and the wallowing behavior of bison. For hobbies, I continually attempt to train my rat terriers (terriers to most people) and design and sell cross-stitch patterns.

Overview

BIOL198 is an introductory Biology course with emphasis on understanding processes and linkages within and between different levels in the hierarchy of life. Specific areas covered include the scientific method, evolution, biological molecules, structure/function of cells, energy flow, genetics, ecology, biodiversity, and plant/animal biology.

This course introduces you to a wide range of topics in the science of Biology. We will provide you with some knowledge of each of these areas and illustrate how this basic information can help you understand biological processes. Over the course of this semester you will encounter, and will need to assimilate, a great deal of material. It is not enough to simply memorize the words in the readings or computer material. You need to understand what is being described. Memorizing is NOT the same thing as understanding. In order to succeed, you will need to devote a significant amount of time (at least 8-12 hours EACH WEEK) to studying.

Course Goals and Learning Outcomes

The overall goals of this course are threaded throughout the material. On any given day, you will work with material and information that will fulfill several of these goals. So, when you complete this course, you will have:

1. an understanding of basic terminology and processes from the breadth of the biological sciences.
2. an awareness of the diversity of life and the evolutionary processes that lead to biodiversity.
3. an awareness evolutionary and ecological connections between all living organisms.
4. a basic grounding in critical thinking and how to interpret scientific data.
5. a basic grounding in how to distinguish between scientific facts and anecdotes, misconceptions, or misrepresentations.
6. a basic grounding in how to effectively communicate biology as a science to individuals without a scientific background.
7. an understanding and appreciation for the importance of the biological sciences to modern society.

Required Textbooks and Equipment

All materials for this course are computer based, and the greatest majority of the material can be accessed from within Canvas. There is no additional textbook or equipment required.

Expectations

What you can expect of your instructor

I will communicate with you primarily through the tools within this Canvas course. If you have a personal concern or question you would like to talk about, please send me an email directly. During the workweek, I will respond to personal emails or your posts directed to me within 24 hours. I will review communication over the weekend, but I will respond on Monday to most situations. If you need to reach me by email, please use the subject line: Course Name/Number, Topic. Please allow a full 24 hours before emailing me again about the same question or issue, and on Monday for inquiries sent over the weekend.

- I will work to foster community as much as possible.
- I will post grades within three days of the final due date of the assignment unless otherwise stated.

What I expect of you

Expect to spend a minimum of between 8 and 12 hours a week with this course. You must log in frequently, if not daily. It is important to log in early in the week so that you understand what is expected and have time to ask questions. **I expect you to ask questions if something is unclear.**

Netiquette

Rules of style or Netiquette (network etiquette) are expected when communicating via class e-mail lists, message boards and discussion rooms. These are the guidelines set forth by K-State Global Campus:

Stick to the topic of discussion and its purpose

- Use the subject line to announce your topic. Often, busy people will only open messages that have creative subject lines.
- Use only one topic per message.
- Get to the point. A limit of one page (screen) per message is ideal.
- Don't post advertisements (called spamming) or chain letters to the class discussion.

Use courtesy and common sense in all electronic communications

- Consider what you write, as it's a permanent record and can be retrieved easily.
- Class discussions are confidential. Do not share or forward others' email without permission.
- When responding to a message, don't quote back an entire message. Delete the excess (snip) and make your comments at the very top before starting the quotes.
- DON'T TYPE IN ALL CAPS. This is hard to read and is considered shouting.
- Avoid sarcasm, as it is easily misunderstood.
- Avoid correcting others' grammar, punctuation and spelling unless it is necessary to clarify discussion.
- Avoid flaming. A flame is an abusive, harassing or bigoted message that attacks an author of a message.
- Respect the opinions of others and be sensitive to the diverse nature of people in the class. Keep in mind that although you cannot see other members on the list, you can show respect for individual differences. Diversity issues may include the following and others: race, ethnicity, religion, disabilities, gender, sexual orientation, age, social class, marital status, urban vs. rural dwellers. (See K-State's [Notice of Nondiscrimination](#)).

Check posting guidelines

- Professors will have different requirements for posting. Make sure that you check the guidelines for each course so you adequately show a "presence" in the course.
- Make sure your post is substantive; simply replying "I agree" will not be considered a strong contribution to the discussion.
- Check discussions frequently and respond on subject.
- Focus on one subject per post.
- Cite all quotes, references and sources.

Schedule

The class is divided into six units, each ending with a capstone activity and an exam.

Unit 1 = Introduction to Biology and Evolution (weeks 1 and 2)

Unit 2 = Biochemistry and Cell Biology (weeks 3, 4, and 5)

Unit 3 = Genetics (weeks 6 and 7)

Unit 4 = Ecology (weeks 8 and 9)

Unit 5 = Biodiversity and Plant Biology (weeks 10, 11, and 12)

Unit 6 = Animal Biology (weeks 13, 14, and 15)

Week	Dates	Topics Covered	Assessments
1: Introduction	21-26 Aug	1. Class Format 2. Biology 3. Science	Quiz and Discussion post
2: Evolution	27 Aug - 2 Sep	1. Natural Selection 2. Relationships	Quiz and Discussion post
3: Cells & Chemistry	3-9 Sep	1. Microscopy 2. Cells 3. Basic Chemistry 4. Energy Molecules	Capstone: Unit 1 Exam: Unit 1 Quiz and Discussion post
4: Cell Function	10-16 Sep	1. Proteins 2. Membranes 3. Cell Cycle	Quiz and Discussion post
5: Cellular Energetics	17-23 Sep	1. Transport 2. Photosynthesis 3. Respiration	Quiz and Discussion post
6: Micro Genetics	24-30 Sep	1. Making Proteins 2. Mutation 3. Meiosis	Capstone: Unit 2 Exam: Unit 2 Quiz and Discussion post
7: Organism Genetics	1-7 Oct	1. Simple Mendelian 2. Dominance 3. Linked Genes 4. Population Genetics	Quiz and Discussion post
8: Ecology	8-14 Oct	1. Ecosystems 2. Biogeochemical Cycles 3. Populations	Capstone: Unit 3 Exam: Unit 3 Quiz and Discussion post
9: Communities	15-21 Oct	1. Communities 2. Predator/Prey 3. Aquatic nutrients	Quiz and Discussion post

10: Biodiversity	22-28 Oct	1. Viruses 2. Prokaryotes 3. Protists 4. Lichens & Fungi	Capstone: Unit 4 Exam: Unit 4 Quiz and Discussion post
11: Plants	29 Oct - 4 Nov	1. Plant Diversity 2. Reproduction & Development	Quiz and Discussion post
12: Plants & Environments	5-11 Nov	1. Transport 2. Climate Change 3. Photo Pathways	Quiz and Discussion post
13: Animal Biology	12-18 Nov	1. Characteristics 2. Animal Diversity 3. Transport	Capstone: Unit 5 Exam: Unit 5 Quiz and Discussion post
Thanksgiving Break	19-25 Nov	-----	-----
14: Coordination & Communication	26 Nov - 2 Dec	1. Internal 2. External	Quiz and Discussion post
15: Land	3-9 Dec	1. Adaptations	Quiz and Discussion post Capstone: Unit 6
16	10-11 Dec	Final Exam	Exam: Unit 6

Assignments

Quizzes (Each week)

Each quiz typically consists of a mix of multiple-choice questions (with a few multiple answer, true/false, and fill-in-the-blank) drawn from question banks. You may use your notes or any of the material we provide to help you complete the quiz, but your answers should be your own. Quizzes are a feedback mechanism for both you and your instructors: if you get something wrong you'll have time to learn from it before your exam.

Discussions (Each week)

A discussion assignment consists of one or two videos and a question. You can sometimes answer the question simply by watching the video. Other times, you may want to work through the material before answering. You will answer each question completely and in your own words. Once you submit your answer, you will be able to see the answers provided by your classmates and can come back to reply to your own post if you feel you want to add or correct something.

Capstone activities (Each unit: every two to three weeks)

Capstone activities are an assessment of how well you understand basic biological principles. You will use your understanding of the readings and lessons to analyze a biologically based topic. Responses to the capstone activities are in short answer or short essay format.

Exams (Each unit: every two to three week)

Regular exams in this course consist of a variety of question types worth one point each. Make-up exams also consist of a variety of one-point question types.

All exams are taken via Canvas and are available from midnight to midnight (48 hours) central time on the scheduled dates. There is a specified amount of time to complete each exam (depending on the number of questions), and once an answer is submitted you cannot go back. Questions are drawn from a question bank, so each student gets a slightly different version of the exam. Exam questions require you to apply your understanding of concepts and processes, so don't just memorize or think you can look up an answer quickly. You are allowed to use your notes but no other materials.

Grading

Below is the breakdown of how each assessment contributes to your final grade:

- **Weekly discussions posts** = 15%
- **Weekly quizzes** = 10%
- **Capstone activities** = 25%
- **Exams** = 50%

The following grading distribution will be used: **A**= 90-100%, **B**=80-89%, **C**=70-79%, **D**=60-69%, **F**=59% and below. Students who earn an A have mastered the material, those who earn a B have proficient knowledge of the material, those who earn a C have functional knowledge of the material, and those who earn a D have little functional knowledge of the material. **Neither extra credit nor special projects are available in this course.** It is also not possible to take an exam or submit other work more than once.

Late or Missing Assignments

All assignments are due by 11:59 PM Central Time on the date specified. The purpose of these deadlines is to help you stay on track to complete all materials in a timely manner. The weekly quiz and discussion assignments are set up so that you can submit them for up to one week after the due date. However, by doing so, you will lose 10% of the possible points for each day the assignment is late. The same 10% deduction applies to unit assignments (capstones and exams), except that they will only remain available for two days past the original due date. Late submission without a grade reduction will require documentation from the [Office of Student Life](#). If, for any reason you are unable to complete an assignment on time, please contact me by email as soon as possible so that we can make arrangements for completion of the work. You will also need to provide documentation for your reasons through the [Office of Student Life](#) (785-532-6432).

Exam Time Conflicts

Exams are available for 48 hours. If you have a conflict with any exam time, please contact me in advance or as soon as possible.

Technology

K-State has technology recommendations including a [computer buying guide](#) for success in online learning. You can also visit the [K-State Global Campus website](#) to make sure your technology is up to date.

Note: Canvas will work best in the Google Chrome browser. If you choose to use another browser, please make sure your course materials function within that system. You may need to confirm that your browser, java, and pdf reader are all updated to the latest version.

Technical Difficulties

The K-State [IT Help Desk](#) is there to assist you with questions regarding the technology used for your course. Phone: 785-532-7722 or toll free 1-800-865-6143. Email: helpdesk@k-state.edu

If you have issues with your technology, please contact them first, they are the technology experts. If you continue to have problems, please post in the “Ask Instructor” discussion thread so that other students can indicate if they are also having problems. If you miss a deadline due to technological difficulties, make sure it is documented through communication with the IT Help Desk, then exceptions may be made on a case-by-case basis. Kansas State University recommends that you follow these [guidelines](#) for online security and computer safety.

K-State E-mail Account

All students are required to have an active KSU e-mail account. You may forward incoming e-mails to a different account (like your school/work account or a Gmail account) but I will only send emails to your KSU e-mail address. Do **not** forward your K-State email to a Hotmail account. This frequently creates problems as the KSU server rejects both incoming and outgoing e-mails to Hotmail accounts. During this course, it is your responsibility to check your Canvas inbox or KSU e-mail account multiple times each day.

Other Technology Resources

- [Office 365 Help and Support](#)
- [Zoom](#)
- [Media Center](#)
- [K-State Libraries](#)
- [Canvas Help](#)

Academic Honesty

Kansas State University has an Honor and Integrity System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor and Integrity System. The policies and procedures of the [Honor and Integrity System](#) apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. A component vital to the Honor and Integrity System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course

work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

KSU also has a plagiarism policy with this definition - *Plagiarism is taking credit for someone else's ideas, work, or words. In a university setting, it means submitting academic, scholarly, or literary work in which you either claim or imply the material to be your own, when that is not the case. Webster's New Collegiate Dictionary, eleventh edition, defines plagiarism simply: "to steal and pass off the ideas or words of another as one's own without crediting the source" (2003).* If you have questions about specific applications of this definition, or the definition itself, please consult with your instructor.

In addition, in this class, the following are violations of the KSU Honor Pledge and are not allowed:

- Sharing of instructor-provided class materials without written permission from the instructor (this includes posting questions to Chegg or other electronic media sites) in any format that allows access by the public or by other students. Instructor-provided class materials include, but are not limited to, assignments, handouts, presentation files or printouts, or study guides. You may contribute your personal notes to other students or to course-specific note-taking web sites, but these cannot include any instructor-provided materials.
- Accessing or viewing assignment questions/answers that have been posted, without the permission of the instructor, to an electronic media site (such as Chegg).
- The use of or reference to, materials from other students without written permission from the instructor. These include but are not limited to old exams, other graded assignments, papers, or quizzes, whether from the current semester, or past semesters.
- Using AI programs to provide text for short answer questions.
- Working with another person to answer questions on any assignment.

Copyright

Copyright 2023 (Eva Horne) as to this syllabus and all computer-based material. During this course, students are prohibited from selling notes to or being paid for taking notes by any person or commercial firm without the express written permission of the professor teaching this course. In addition, students in this class are not authorized to provide class notes or other class-related materials (including exams and exam questions) to any other person or entity (this includes posting questions or material to electronic media sites for any purpose), other than sharing them directly, for the purposes of studying, with another student taking the class during the same semester, without prior written permission from the professor teaching this course.

Copyright is a form of legal protection that allows authors, photographers, composers, and other creators to control some reproduction and distribution of their work. Both students and professors are protected by copyright. Please visit K-State's [Copyright Basics website](#) for more information.

Policies

Student Access

Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the [Student Access Center](#), 785-532-6441; for K-State Polytechnic campus, contact [Julie Rowe](#), Diversity, Inclusion and Access Coordinator, or call 785-826-2971.

Mutual Respect and Inclusion

At K-State, faculty and staff are committed to creating and maintaining an inclusive and supportive learning environment for students from diverse backgrounds and perspectives. K-State courses, labs, and other virtual and physical learning spaces promote equitable opportunity to learn, participate, contribute, and succeed, regardless of age, race, color, ethnicity, nationality, genetic information, ancestry, disability, socioeconomic status, military or veteran status, immigration status, Indigenous identity, gender identity, gender expression, sexuality, religion, culture, as well as other social identities.

Faculty and staff are committed to promoting equity and believe the success of an inclusive learning environment relies on the participation, support, and understanding of all students. Students are encouraged to share their views and lived experiences as they relate to the course or their course experience, while recognizing they are doing so in a learning environment in which all are expected to engage with respect to honor the rights, safety, and dignity of others in keeping with the [K-State Principles of Community](#).

If you feel uncomfortable because of comments or behavior encountered in this class, you may bring it to the attention of your instructor, advisors, and/or mentors. If you have questions about how to proceed with a confidential process to resolve concerns, please contact the Student Ombudsperson Office. Violations of the [student code of conduct](#) can be reported at [this website](#). If you experience bias or discrimination, it can be reported [here](#).

Discrimination, Harassment, and Sexual Harassment

Kansas State University is committed to maintaining academic, housing, and work environments that are free of discrimination, harassment, and sexual harassment. Instructors support the University's commitment by creating a safe learning environment during this course, free of conduct that would interfere with your academic opportunities. Instructors also have a [duty to report](#) any behavior they become aware of that potentially violates the University's policy prohibiting discrimination, harassment, and sexual harassment ([PPM 3010](#)).

If a student is subjected to discrimination, harassment, or sexual harassment, they are encouraged to make a non-confidential report to the University's [Office for Institutional Equity \(OIE\)](#) using the [online reporting form](#). Incident disclosure is not required to receive resources at K-State. Reports that include domestic and dating violence, sexual assault, or stalking, should be considered for reporting by the

complainant to the [Kansas State University Police Department](#) or the [Riley County Police Department](#). Reports made to law enforcement are separate from reports made to OIE. A complainant can choose to report to one or both entities. Confidential support and advocacy can be found with the [K-State Center for Advocacy, Response, and Education \(CARE\)](#). Confidential mental health services can be found with Lafene Counseling and Psychological Services ([CAPS](#)). Academic support can be found with the [Office of Student Life \(OSL\)](#). OSL is a non-confidential resource. A comprehensive list of resources is available [here](#). If you have questions about non-confidential and confidential resources, please contact OIE at equity@ksu.edu or (785) 532-6220.

Classroom Conduct

All student activities in the University, including this course, are governed by the [Student Judicial Conduct Code](#) as outlined in the Student Governing Association [By Laws](#), Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

Academic Freedom

Kansas State University is a community of students, faculty, and staff who work together to discover new knowledge, create new ideas, and share the results of their scholarly inquiry with the wider public. Although new ideas or research results may be controversial or challenge established views, the health and growth of any society requires frank intellectual exchange. Academic freedom protects this type of free exchange and is thus essential to any university's mission.

Moreover, academic freedom supports collaborative work in the pursuit of truth and the dissemination of knowledge in an environment of inquiry, respectful debate, and professionalism. Academic freedom is not limited to the classroom or to scientific and scholarly research, but extends to the life of the university as well as to larger social and political questions. It is the right and responsibility of the university community to engage with such issues.

Face Coverings

Kansas State University strongly encourages, but does not require, that everyone wear masks while indoors on university property, including while attending in-person classes. For additional information and the latest on K-State's face covering policy, [go here](#).