BIOL 881: Current Issues in Biology

Term: Fall 2024 Instructor: Dr. Gregory J. Pec

Course Credits: 1

Course Delivery: Online
Asynchronous

Office: 319 Bruner

Email: pecg@unk.edu

Phone: 308.865.8410

Office hours (link to schedule appointments on Canvas homepage): Wednesdays 10 AM – 12 PM and Thursdays 10 AM – 12 PM Central Time, or by appointment. Please take advantage of office hours to check-in, ask questions, or follow-up on anything you would like to understand better. Email should be used judiciously to address questions pertaining to course administration/scheduling or urgent matters. I respond to messages as quickly as I can, generally within 24-48 hours. Direct issues related to the course content should be posted to the Canvas forum described below.

Course Description: This course will expose the student to many different biological research topics, stimulate discussion on these topics, promote awareness of current issues in biology, help students critically analyze relevant and contemporary primary literature and ensure students are able to prepare appropriate presentations for scientific meetings. This course is repeatable for up to 3 credit hours.

Course Learning Objectives: At the completion of the course, students will be able to: (1) discuss scientific findings critically with their peers; (2) have a broad understanding of different fields within biology; and (3) effectively communicate to their peers the major findings, limitations, and logical next steps of a research article.

Recommended Texts and Materials

None. All resources for this class can be found online and in Canvas or through online or UNK Library searches.

Required Technology

- As an online course, access to an up-to-date computer and Canvas several times a week is required (checking in daily is encouraged).
- An updated PDF reader will also be needed to read course materials.
- You may need to use software, such as Microsoft Word, Excel, or PowerPoint or another equivalent.
- Microsoft365 software is available to UNK students for free download.
- Ability to use search engines (for example, <u>Google Scholar</u> or <u>the Calvin Library search engine</u>) to locate scholarly works is expected of graduate students. If you are not already comfortable with this, I encourage you to reach out to me or the <u>Natural Sciences</u> Librarian at Calvin Library for assistance.
- For issues with Canvas or other technologies associated with your university account, please contact the <u>University technology help desk</u>.

Course Organization Canvas

For this class we will use an online course management system called Canvas. Course information, updates, and related information, etc. will be posted here. I have also created a forum in Canvas for asking/answering questions about course information.

Participation

The more students are engaged in a course, the more they tend to get out of it. I encourage you to spend at least a little time each day with course material or activities though I recognize this is not always possible.

Communication

Please check course announcements in Canvas frequently. This the primary way I will communicate. Please feel free to reach out to me at any time via Canvas messages, email, or office phone. I will respond as quickly as possible, usually within 24-48 hours. Emails sent after 3 pm (CST) on Fridays will be answered by the following Monday. If sending an email or leaving a voicemail, please be sure to include BIOL 881 in the subject (email) or message (voicemail) so I can prioritize responding to it.

Course Structure and Assessment

All work is due by 11:59 PM Central Time on the date listed in Canvas and on the course schedule, unless otherwise indicated. This course consists of recorded information sessions, reading assignments, and online discussion boards. All materials for each week will be posted on Canvas. This is not a self-paced course. You will be expected to keep up with the pace of the course, and the course structure is designed to help with this. If this is your first distance class, you will find that these classes can be fast paced. Understandably, everyone in this class has several commitments other than this class. Nonetheless, as a student who has registered for this class, it is your full responsibility to ensure that you can meet the requirements and commit the needed time for this course. Students are responsible for all material covered, even for assignments that are missed. If you start to fall behind, it may be difficult to catch up. Please do not hesitate to contact me.

Assignments:

Discussion Boards (D): Discussion boards will begin on Wednesdays and run through to Tuesdays of the following week. Students will be expected to respond to the discussion question(s) and to other students' comments. To receive full credit, students must make significant new contributions to the discussion and not simply agree or disagree with the previous response. Peerreviewed references will be required to support your statements. Please be considerate of your classmates' responses; abusive comments or attacking other student's comments will not receive credit. Comments should be constructive even if you disagree with another student. Possible topics of discussion for each presenter may include methodology, statistics, experimental design, the quality of figures, clarity of presentation, data interpretation, and conclusions. Students should also discuss peer-reviewed articles that are relevant to the topic. Discuss major findings of the article and whether they refute or support the speaker's hypothesis. I want to know what your thoughts are on the research. Don't simply summarize the article as that does not lead to a good, open-ended discussion. The reference should be included within the text as well as at the end of your post (therefore, a parenthetical and full citation). Posts should be kept to around 1 page in length.

Further details will be provided for each discussion board assignment. In addition to this weekly mechanism for student participation, please become familiar with all other such policies on attendance found in the <u>University Graduate catalog</u>.

Mini-Assignment TED Talk (mA): Find a TED Talk or podcast (Radiolab, Nature podcast, etc.) on a topic of your choice and write a small summary and lead discussion on that topic for the week. The summary and discussion should include relevant peer-reviewed articles and critical review of the talk. Further details will be provided for the assignment under its scheduled module.

Assignments (A): Position Paper - The goal of this paper is to present both sides of the argument but ultimately argue for one stance with supporting references. I will be grading you based on how well you present both sides of the argument and how well you support your stance over the counterargument. These should be approximately 1.5 pages single-spaced. You should have at least 2 primary arguments for and 2 counter claims against your position. You should have a minimum of 4 peer-reviewed primary research articles for this assignment. Further details will be provided for the assignment under its scheduled module. Presentation - Students have the option to present on any topic within the biological sciences, or, if you have completed BIOL 831E, you can present your research project. I highly encourage students to present their research findings when appropriate. For students presenting on a topic rather than their research, you must critically evaluate a peer-reviewed primary research article from within the last 3 years. Please provide background information relevant to your topic and explain the significance of the research in this area. Presentations should contain original figures from these studies with the proper citations. Students should compare and criticize different studies with special focus on methods. These presentations must contain video of yourself and should be recorded using YuJa or another video platform. Further details will be provided for the assignment under its scheduled module.

Basis for final grade

Assessment	Points
Discussions (10 points each)	70
Critical Evaluation Week	20
TED Talk/Podcast	20
Position Paper	50
Presentation	60
Total	220

Grades will be assigned using the standard grading scale for the Department of Biology, as follows: A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%), C (73-77%), C- (70-72%), D+ (68-69%), D (63-67%), D- (60-62%), and F (below 60%).

Course Policies and Resources

I take my role as your instructor very seriously; I care about how well you do in this course and that you have a challenging and rewarding experience. It is my commitment to you to respond individually to the work you submit in this class and to return your work promptly.

Grading Policy

Scores for each assignment will be posted on the course Canvas page. If you think there was a grading error or do not understand the feedback you receive on graded work, please contact me as soon as possible. If you would like me to regrade your work, requests should be made within three days after the graded work has been returned to you. Regrade requests may result in a lower grade.

Late Work Policy

As a student enrolled in this course, one of your responsibilities is to submit course work on time. With that said, I recognize there may be times when you are unable to complete or submit these tasks by their due dates. To accommodate this, late assignments will be accepted up to 3 days late. If more than 3 days late, the submission will not be accepted and a grade of 0 (zero) will be recorded for that assignment. Course work will not be accepted late unless prior arrangements have been made due to documented professional or extenuating personal circumstances (e.g., family emergency, participation in university-sanctioned activities, religious observation, etc.). Please contact me as soon as possible to discuss alternative arrangements.

Acceptable Use of Artificial Intelligence (A.I.) Tools

The use of A.I. tools such as ChatGPT is allowed in this course under certain circumstances. For writing assignments, you must clearly indicate any use of A.I. tools and provide appropriate citations for any A.I. generated content produced. This should include a full documentation of how the tool was used. A.I. should not replace your individual effort or original work but rather can be used as a supplemental resource to support your own critical thinking and should not be used to produce first and only drafts. For quizzes/exams, use is strictly prohibited. Misuse or violation of this policy for the course, including unauthorized or excessive use of A.I. will be considered a breach of the academic honesty policy. If it is found in violation, you will receive a grade of 0 (zero) for the assignment. A subsequent violation after receiving a 0 (zero) for any assignment will result in failure of the course for the semester and/or referral to the Senior Vice Chancellor for Academic Affairs.

For my class, a responsible use of A.I. based tools in completing writing assignments must be done in accordance with the following:

- 1. You must clearly identify the use of A.I. based tools in your work. Any work that utilizes A.I. based tools must be clearly marked as such, including the specific tool(s) used. For example, if you use ChatGPT-4, you must cite "ChatGPT-4. (YYYY, Month DD of query). "Text of your query" generated using OpenA.I. https://chat.openai.com/"
- 2. You must be transparent in how you used the A.I. based tool, including what work is your original contribution. An A.I. detector such as GPTZero (https://gptzero.me/) may be used to detect A.I.-driven work.
- 3. You must ensure your use of A.I. based tools does not violate any copyright or intellectual property laws.
- 4. You must not use A.I. based tools to plagiarize without proper citation (see previous points above).

All students at the University of Nebraska Kearney should be aware of the following university-wide course policies and resources.

Attendance Policy

Your instructor may have indicated on their syllabus an attendance policy specific to their class. 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

Graduate Student Attendance Policy

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.

Undergraduate Academic Integrity Policy

Graduate Academic Integrity Policy

Finals Week Policy

The final exam will be administered in the time period scheduled during finals week in accordance with University policy (<u>Final Exam Schedule</u>). More information about UNK's Finals Week Policy, including when it is appropriate to ask for special accommodations to move a course's final exam, can be found here: <u>Finals Week Policy</u>.

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 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

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/fag-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 studentcentered 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.

Distribution of course materials: The materials on the course website are only for the use of students enrolled in this course for purposes associated with this course and may not be retained or further disseminated. The materials on the course website may be protected by copyright, and any further use of this material maybe in violation of Federal copyright law.

Disclaimer: Any typographical errors in this Course Outline are subject to change and will be announced on the course Canvas page.

Tentative Fall 2024 Course Schedule

All work due by 11:59 PM Central Time unless otherwise indicated. Required content not listed here may be provided in Canvas.

Week	Topics	Assessment Due Dates
1	Introductions	Aug 31, Sept 3
2	Plagiarism and Citations	Sept 10
3	Critical Evaluation	Sept 15
4	Ninja Whales!	Sept 20, 24
5	TED Talks	Oct 1
6	TED Talks Discussion	Oct 5, 8
7	Discuss Previous Presentation	Oct 12, 15
8	Fall Semester Break	None
9	Position Paper	Oct 29
10	Position Paper Discussion	Nov 2, 5
11	Presentation Prep	None
12	Post Presentations to Canvas	Nov 19
13	View Student Presentations	Nov 22, 26
14	Thanksgiving break	
15	View Student Presentations	Dec 7, 10
16	Dead Week	None
17	Finals Week	None

Copyright: Dr. Gregory J. Pec, Department of Biology, University of Nebraska at Kearney (2024).