

**Current Issues in Biology: BIOL 881  
Course Syllabus – Fall 2021**

**Instructor:** Dr. Gregory J. Pec

**Phone:** 308.865.8410

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**Office hours:** Please arrange office hour appointments by email.

Course Description:

Students will discuss weekly student and faculty speaker presentations, primary literature, and Ted Talks. This course is designed to introduce students to a number of biological research areas. In this course, students learn about current issues in biology, critically evaluate primary literature and scientific presentations, and present research to their peers.

Course Objectives: Following completion of this course, students should be able to:

1. Discuss scientific findings critically with their peers
2. Have a broad understanding of different fields within biology
3. Effectively communicate to their peers the major findings, limitations, and logical next steps of a research article

Textbook:

None. All resources for this class can be found online and in Canvas.

Computer and Software:

Access to a computer with internet access, Microsoft PowerPoint. Software can be purchased through UNK bookstore at a discount. We will have video presentations that require the use of a webcam.

Communication

The best way to reach me is through email. I will respond to email fairly quickly and if you need to talk to me please email me and we can set up a time to talk further. You should frequently check your UNK email and Canvas for course assignments or announcements. Seminars and other pertinent information will be posted on Canvas.

Grading

Discussion (10pts/each)	80
Critical Evaluation Week 3 (20pts)	20
Ted Talk/Podcast (20pts)	20
Position Paper (50pts)	50
<u>Presentation (60pts)</u>	<u>60</u>
Total	230

Grades will be assigned using the Department of Biology standard grading scale: 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%).

**Late submissions will be docked 10% per day for up to 3 days.**

### Discussion

I will post assignments on Monday of each week and you will have until the following Saturday to participate. Then students must complete secondary discussion with other students by the following Tuesday. To receive full credit, students must make significant new contributions to the discussion and not simply agree or disagree to the previous response. **Peer-Reviewed References** will be required to support your statement. 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. The reference should be included in the text as well as at the end of your post. Posts should be kept to  $\frac{3}{4}$  to 1 page in length.

### TED Talks

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. Guidelines are as follows: You can pick any TED talk/podcast you would like (as long as it is related to biological sciences), if it is a short TED talk (some are 5 minutes long) you may need to supplement more of your summary with outside literature. But you should write a short summary, provide a link to the talk or podcast for your group, and make sure you support your summary with references. I am looking more for content rather than length (but they should be around 1 page in length). Post your TED talk post by **September 28th**. Comment on 3 of your group member's presentations by **October 3rd**. Respond to all comments on your TED talk by **October 5th**.

### Position Paper

For this assignment, you will write a position paper on one of the topics listed below. The goal of this paper is to present both sides of the argument but ultimately argue for one stance with supporting references. We will be grading you based on how well you present both sides of the argument and how well you support your stance over the counter-argument. The best way to support your stance is through primary peer-reviewed articles. In these position papers you need to leave emotion and personal experiences out of your argument. Post your primary post by **October 29th** and comment on a peer post by **October 31st** respond to all comments on your paper by **November 2nd**. These should be approximately 1.5 pages single spaced. You should have at least 2 counter claims and 2 primary arguments for your position. You should have a minimum of 4 peer reviewed primary research articles for this assignment.

### Presentation

Presentations are due by **November 16th**. We will discuss the first four presentations (Alphabetically by last name) beginning on November 16th. The first 4 people alphabetically in your group will go the first week. Comment on their presentations by **November 20th**. If you are going the first week, please respond to comments throughout the week and wrap up discussion by **November 23rd**. The rest of the group members will go the second week. Comment on their presentations by **December 4th**. If you are going the second week, wrap up discussion by **December 7th**. These should be 10 - 15 minutes long, over 15 minutes will be docked

unless the presentation is over your 831 project. 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. Please do not simply restate the findings the authors provide. These presentations must contain video of yourself and should be recorded using VidGrid, for example.

In addition to the one peer-reviewed article you are presenting on or your own research, there must be a minimum of 5 supporting peer-reviewed articles. All references must be cited in a literature cited section. Figures must also be cited and must be from a peer-reviewed article to contribute to your 5 minimum references.

Presentations should include title page, introduction to the topic, relevant methods, results, conclusions, and citations. Additionally, students must have organized presentations that are easy to follow and should be under 15 minutes long. It is important that you are able to critically evaluate your peer-reviewed articles. Do not just summarize the research.

Students are required to present on a different topic each time they take this class and mention on the title slide what semester of 881 this is for you and your previous topics.

### UNK Library

The library is a good resource when looking for articles that may not be available online. The following links are especially usefully to distance students.

<http://library.unk.edu/services/distance.php>

<http://library.unk.edu/services/ildd.php>

If you have specific questions about Interlibrary loan contact Sheryl Heidenreich at [heidenreichs@unk.edu](mailto:heidenreichs@unk.edu).

### Academic Dishonesty

Plagiarism will not be tolerated, please refer to the student handbook or ask me for more clarification on the subject if unsure what constitutes plagiarism. It is expected students work independently on assignments unless otherwise stated by the instructor. Group work where not specified will be considered cheating and students will receive a zero for that assignment. Multiple offenses will result in the student(s) receiving a failing grade for the course and possible removal from the program.

### Withdraw (W) and Incomplete (I)

In unusual circumstances beyond the student's control, an incomplete (I) may be issued. The (I) is issued as a final grade with the student having 12 months to complete the necessary work. If the coursework is not completed in this time the (I) will be converted to a failing grade (F) on the student's transcript. Students may withdraw from the course before 9 weeks have been completed and a (W) will appear on the transcript. Students are responsible for filling out the necessary paperwork to complete this process. Instructors are not able to withdraw students. If the student drops the class the (W) will not contribute to the student's overall GPA. The deadline to withdraw from courses is October 25<sup>th</sup>.

**University Policies Related to COVID-19:** The University of Nebraska issued the following statement on August 6, 2021. The statement was reinforced by President Ted Carter on August 13, 2021:

All vaccinated faculty, staff and students, as well as visitors to campus, are encouraged, but not required, to wear face masks indoors. Unvaccinated individuals should continue to wear masks. (Masks are required indoors for all individuals at the University of Nebraska Medical Center.) <https://nebraska.edu/news-and-events/news/2021/08/university-of-nebraska-system-updates-covid-19-protocols>

Consistent with the University of Nebraska's guiding protocols, there are circumstances in which many people in our community may not be able to be vaccinated. Faculty may request, not require, that students wear masks in class under circumstances that clearly indicate unnecessary yet controllable risk of infection. Please note that pandemic precautions are subject to change.

### **Student Accommodations**

**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](mailto:unkdso@unk.edu)

**UNK Statement of Diversity & Inclusion:** UNK stands in solidarity and unity with our students of color, our Latinx and international students, our LGBTQIA+ students and students from other marginalized groups in opposition to racism and prejudice in any form, wherever it may exist. It is the job of institutions of higher education, indeed their duty, to provide a haven for the safe and meaningful exchange of ideas and to support peaceful disagreement and discussion. In our classes, we strive to maintain a positive learning environment based upon open communication and mutual respect. UNK does not discriminate on the basis of race, color, national origin, age, religion, sex, gender, sexual orientation, disability or political affiliation. Respect for the diversity of our backgrounds and varied life experiences is essential to learning from our similarities as well as our differences. The following link provides resources and other information regarding D&I: <https://www.unk.edu/about/equity-access-diversity.php>.

**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 Cindy Ferenc in Student Health, 308-865-8219. The following link provides information for students and faculty regarding pregnancy rights. <http://www.nwlc.org/resource/pregnant-and-parenting-students-rights-faqs-college-and-graduate-students>

**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 she or he 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.

If you have questions regarding the information in this email please contact **Mary Chinnock Petroski, Chief Compliance Officer** ([petroskimj@unk.edu](mailto:petroskimj@unk.edu) or phone 8400).

### Course Schedule

<b>Week</b>	<b>Schedule</b>	<b>Due</b>
1	Introductions (10pts)	Aug 28, Aug 31
2	Plagiarism, Citations (10pts)	Sept 7
3	Critical Evaluation (20pts)	Sept 14
4	Can we create vaccines that mutate and spread? (10pts)	Sept 18, 21
5	TED Talks (20pts)	Sept 28
6	TED Talks Discussion (10pts)	Oct 3, 5
7	Ocean acidification (10pts)	Oct 9, 12
8	Fall Break	No Assignment
9	Position Paper (50pts)	Oct 29
10	Position Paper Discussion (10 pts)	Oct 31, Nov 2
11	Presentation Prep	No Assignment
12	Post Presentations to Canvas (60pts)	Nov 16
13	View Student Presentations (10pts)	Nov 20, 23
14	Thanksgiving Break	No Assignment
15	View Student Presentations (10pts)	Dec 4, 7
16	Finals Week	No Assignment