

BIOL 4001 Seminar in Biology

Spring 2021

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Time and Place of Class Meetings:

BIOL 4001-202 will be held in Room 209 of Bolin Hall at 12:00-12:50 on Wednesdays

Suggested Text (Optional):

1. *Writing Papers in the Biological Sciences* by Victoria E. McMillan (Any Editions 5-7) (available in Moffett Library reserve, 1st floor for 2-hour checkout and use in the library, QH304.M36)
2. *Reading Primary Literature: A Practical Guide to Evaluating Research Articles in Biology* by Christopher M. Gillen, 2007. ISBN 0-8053-4599-X.

The purpose of this seminar class is to:

1. Provide students with an opportunity to express themselves orally by preparing and presenting a seminar presentation such as expected at professional meetings and conventions. Seminar should help the student prepare to communicate with an audience of peers both formally and informally.
2. Provide a forum for discussion and evaluation of peer-reviewed research journal publications on current topics.
3. Examine basic concepts and current topics in biology.
4. Assess competency of biology graduating seniors in the use of microscopes.
5. Assess ability of biology graduating seniors to generate, understand, and correctly interpret data presented in tabular and graphical formats.
6. Assess ability of biology graduating seniors to critically and effectively read and evaluate professional literature
7. Take the comprehensive Major Field Test in Biology.

Expectations:

A. Two proficiency exams.

1. Evaluate your ability to generate, understand and correctly interpret data that are presented in tabular and graphical formats.
2. Evaluate your competency and use of microscopes. It will consist of three parts:
 - a. Written exam
 - b. Practical
 - c. One-on-one assessment with a faculty member.

B. Major Field Test (MFT) in Biology.

1. We will have a single Saturday morning meeting on February 24th from 9:00AM-12:00PM in which you will take the MFT. This separate exam is necessary due to the 2-hour length of the exam. ATTENDANCE IS MANDATORY.
2. Your performance on the MFT exam will count 10% of your grade for the seminar.
3. Grade is based on a 180-point scale.
4. You will be given some resources to prepare for the MFT, and you should take preparation seriously and try to do your best on it.

C. Oral presentation.

1. Choose a peer-reviewed **primary** journal article published within the last TWO years.
 - a. The article must relate to some aspect of biology.
 - b. The article must be approved by the instructor for use in your presentation.
2. Prepare flyers for your presentation.
 - a. Decide on an appropriate title for your seminar presentation and prepare flyers.
 - b. Your flyer should be pre-approved by the instructor prior to the due date.
 - c. Five copies of the flyer will be submitted to the instructor ONE WEEK BEFORE YOUR PRESENTATION. Flyers will be posted in Bolin Science Hall to announce your presentation
3. Present a 15-minute presentation on the article and topic it concerns using PowerPoint or other appropriate presentation format. The presentation should address the following lettered items (Some possible questions to consider are also listed below):
 - a. Background on the topic of the research article.
 - i. Why is it important?
 - ii. Any prior or related work reported on the topic?
 - b. Hypothesis/problem addressed in the research article.
 - i. Why was the research performed in the first place?
 - ii. What was trying to be answered?
 - c. Methods and procedures used
 - i. How was the research carried out and conducted?
 - d. Results
 - i. Was the hypothesis/problem studied and answered?
 - ii. Were there any unexpected results? Problems?
 - e. Conclusions
 - i. Were appropriate conclusions drawn?
 - ii. Were any new questions that developed out of the research?
 - f. Critique of the work
 - i. Were the methods appropriate for the study?
 - ii. Was interpretation of any of the data incorrect?
 - iii. Is there anything you suggest should have been done differently?
 - iv. What other work would you suggest be done?
4. After you complete your presentation, you will answer questions concerning your topic from those in attendance.

BREAKDOWN OF ORAL PRESENTATION

GRADE:

PRESENTATION	60%
PEER EVALUATION	20%
ATTENDANCE	20%
TOTAL	100%

D. You will complete a written exercise that will assess your ability to critically and effectively read and evaluate professional literature.

1. A handout with instructions will be provided.
2. This exercise will be completed and turned in to your instructor **ONE WEEK BEFORE YOUR PRESENTATION** along with the reprint of the article you have chosen to use as the basis for your oral presentation.

Overall Course Grading:

BREAKDOWN OF COURSE GRADE:

ORAL PRESENTATION	60%
MICROSCOPE PROFICIENCY EXAM	10%
GRAPHS/TABLES PROFICIENCY EXAM	10%
WRITTEN EXERCISE ON READING & EVALUATING LITERATURE	10%
MAJOR FIELD TEST IN BIOLOGY	10%
TOTAL COURSE GRADE FOR BIOL 4001	100%

THERE WILL BE NO INDIVIDUAL EXTRA CREDIT

Desire2Learn (D2L):

This class uses D2L as an accompaniment to the course. Due to the current pandemic, D2L is very important to success in this class. In D2L you may chat with fellow students about class, access your grades, and download my notes. I will also post two assignments that you will read and answer questions about in D2L. This platform has several features that may interest you, such as grade notifications and discussions. There is an instructional video on the universities D2L page if you are not familiar with using this platform.

Virtual Office Hours:

I will be available via Zoom for five scheduled office hours per week. You may also e-mail me and schedule a meeting at our mutual convenience. My Zoom personal meeting ID is: [728 649 5580](https://us02zoom.us/j/7286495580). I will admit you from the virtual waiting room as soon as I am available.

Attendance Policy:

Attendance is encouraged. However, due to concern for transmission of COVID-19, we will make as much content as possible available virtually. There is no penalty for illness. **If you feel the least bit ill...please stay home.** All the information will be available online. Three days are mandatory and social distancing will be observed. Those are the days of the Microscope Proficiency Exam (03 February), The Tables/Graphs Proficiency Exam (10 February), and the Saturday date of the Major Field Test (27 February). You are required to attend half of the presentations in person.

Conduct Policy:

While discussion is encouraged, please direct conversations to the front of the classroom so that we all may benefit from it. Do not be a distraction to me or your classmates. **Cheating in any form is not tolerated and may result in an “F” in the COURSE and you being reported to the dean.** Please refer to the Student Honor Creed found [here](#).

Classroom Technology:

Smartphones, Laptops, and tablets are allowed as long as they are silenced and you use them for the purpose of taking notes or supplementing the lecture. If you are reported as misusing this privilege, individuals will no longer be allowed to have their technology in use during class time. I have no problem with being voice recorded. Do not answer cell phone calls in class! No classroom technology is allowed during exams or quizzes. MSU has negotiated special purchase deals with Dell should a student wish to purchase a new laptop. These purchase options can be found [here](#). Models with greater capability are listed under “Science and Engineering”.

Diversity, Equity, and Inclusion:

This classroom is a safe place. We are all part of a learning community comprised of diverse backgrounds, skills, ideas, and orientations. People of all diversity dimensions are welcome and valued and I am committed to an inclusive learning environment free from harassment, sexual misconduct, discrimination, or violence. Hate speech is not tolerated and any form of harassment will result in expulsion from the classroom and an official report to the proper university authority.

Students with Disabilities:

Any student with a disability is encouraged to contact [Disability Support Services](#) at 397-4140. Special accommodations can be made once the student has been evaluated and provides documentation from that office.

Campus Carry:

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University’s webpage regarding [Campus Carry](#).

COVID-19:

Please review the [MSU Texas Return to Campus Plan](#)

For this semester, students attending class must comply with MSU’s requirement for wearing a face covering as mandated in the [MSU Texas Facial Covering Requirement](#) document.

Cleaning supplies are available upon entry to the classroom. Please sit only in designated seats and maintain as much distance as possible between yourself and other students.

The MSU Safety App provides a link a COVID-19 screening assessment. The MSU Safety App is available on the [Apple Store](#) or [Google Play App Store](#).

IF YOU FEEL ILL IN ANY WAY DO NOT COME TO CLASS!

Seminar Schedule

13 January:	Introduction, Roll, Syllabus, Draw Numbers
20 January:	No Class – Video and Materials Posted*
27 January:	Library Searching, Oral Presentation, Literature Evaluation Report*
03 February:	Peer Evaluation Sheet, Microscope Practice in lab
10 February:	Microscope Proficiency Exams
17 February:	Tables/Graphs Proficiency Exams
24 February – 14 April:	Oral Presentations, Submission of Evaluation Reports
27 February (Saturday):	Major Field Test (Bolin 100 & 127)
21 April:	Exit Exam, Course Evaluations, Return Packets