

## **BIOL 4115 Scientific Communication II** **Spring 2024**

**Meeting time:** Wednesday 12:20 – 1:15 PM

**Meeting classroom:** Soules College of Business Room 00203

**Instructor:** Matthew Greenwold, Ph.D., Assistant Professor of Biology

**Office:** HPR 117

**Office Hours:** Wednesdays 9:00 AM – 12:00 PM or by appointment.

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**Phone:** 903.566.6303

**Course Description:** Current topics in biology. Reports on research published in professional journals. Oral presentation required.

In this course, I want you to learn how to effectively communicate scientific research to other scientists and professionals (peers). This will include using online resources to find primary research articles on a topic of your choice and then presenting that material in a format appropriate for scientific conferences.

**Course Learning Objectives:** By the end of the course, students should be able to:

- Search and find peer-reviewed research articles.
- Comprehend and summarize peer-reviewed research articles.
- Effectively communicate scientific research in an “one on one” setting.
- Effectively communicate scientific research to an audience of peer scientists.

**Required Course Materials:** No required textbook.

**Grading:** Your grade will be based on four assignments and attendance. For Biology Seniors, this also includes a biology competency exam. The grade distribution is:

**Biology Seniors**

Assignment 1 =	15
Assignment 2 =	15
Assignment 3 =	25
Assignment 4 =	25
Attendance =	10
<u>Competency Exam =</u>	<u>10</u>
Total	100

**All others**

Assignment 1 =	15
Assignment 2 =	15
Assignment 3 =	25
Assignment 4 =	25
<u>Attendance =</u>	<u>10</u>
Total	90

- Your letter grade will either be calculated as 100 out of 100 = 100% (Seniors) or 90 out of 90 = 100% (Non-Seniors) and based on the below grading scale.
- All late assignments will incur a 10% per day penalty.

Grading	
Percentage	Grade
90-100%	A
80-90%	B
70-79%	C
60-69%	D
< 59%	F

**Assignment 1: DUE February 1<sup>st</sup> by 11:59 PM.** Record an elevator pitch for a scientist/doctor/dentist/professor. It should be based on your experiences and be under 90 seconds. It should include any courses, research, work, or internships relevant to your future career. When submitting the recording, please write a sentence (as a comment) detailing who (scientist, dentist, MD, etc.) you are addressing and the target position (MS, Ph.D., internship, etc.) of the interaction in the comments section on Canvas.

**Assignment 2: DUE February 15<sup>th</sup> by 11:59 PM.** Pick a topic in the field of Ecology and/or Evolution and find and download at least **THREE peer-reviewed primary research articles**. At least one of the articles must have been published in the past three years (2020-2023). Write a brief summary (250-300 words) on your topic and how your chosen articles relate to that topic. Submit your summary and the research articles (PDF versions) via Canvas (4 total documents). This will be your presentation topic (Assignment 4) therefore make sure you are interested in the topic. If you were in Sci Comm I, please state whether you're reusing articles and if or how your topic has changed. You must add ONE new primary research article if you want to keep the same topic from Sci Comm I.

*How do I select a good topic?* I suggest you visit a couple of the major journal websites and read recent titles/abstracts and see if one of them sounds interesting. Here are a few of my favorite journals:

*Science* (<https://science.sciencemag.org/>),  
*Nature* (<https://www.nature.com/nature/research>),  
*Evolution* (<https://onlinelibrary.wiley.com/journal/15585646>),  
*Ecology* (<https://esajournals.onlinelibrary.wiley.com/journal/19399170>),  
*BMC Biology* (<https://bmcbiol.biomedcentral.com>),  
*Molecular Biology and Evolution* (<https://academic.oup.com/mbe>).

**Assignment 3: DUE March 21<sup>st</sup> by 11:59 PM.** Design a poster based on one of your peer-reviewed primary research articles from Assignment two. It should include an introduction/background, methods/materials, results, conclusion/summary/discussion, and references. The poster should be 24" x 36" and submitted as a PDF on Canvas.

**Assignment 4: DUE April 18<sup>th</sup> by 11:59 PM.** Record a scientific presentation based on 1 or more of the primary articles you chose from Assignment 2. It should be between 10-12 minutes in duration and be a PowerPoint presentation. Please see rubric on Canvas under this assignment.

**Competency Exam: TBD.** Each year, seniors majoring in biology take an exam to evaluate the effectiveness of teaching at UT Tyler based on the knowledge of out-going seniors. Your performance on the exam will not affect your grade or be shared with anyone outside of the biology department. You do not need to study for the exam, but I encourage you to focus on the exam and give it your best effort. If you are NOT a Senior Biology Major then you will not take the exam and your final grade will be calculated accordingly. We will pick a time for the exam based on room availability. The exam will occur outside of class time one weekday evening.

**Attendance:** Attendance is worth 10% of your grade. You may miss **ONE** lecture without losing points. Attendance will be checked each class day. I am required to provide attendance data for Financial Aid, midterm, and final grades submissions; therefore, it is critical that you attend class meetings. If you cannot attend for reasons of Illness or other acceptable situations, please contact me to determine the best course of action.

Course Schedule	
Day	Topic
Jan. 17 <sup>th</sup>	Introduction to course and elevator speeches
Jan. 24 <sup>th</sup>	Dr. Joseph Glavy – History and Design of the Compound Microscope
Jan. 31 <sup>st</sup>	Dr. Joseph Glavy – Snake fungal disease
Feb. 7 <sup>th</sup>	Dr. Joseph Glavy – Virology
Feb. 14 <sup>th</sup>	Scientific communication to peers (written)
Feb. 21 <sup>st</sup>	Literature comprehension
Feb. 28 <sup>th</sup>	Science conferences
Mar. 6 <sup>th</sup>	Asking questions at conferences
Mar. 13 <sup>th</sup>	Spring Break, <b>No classes</b>
Mar. 20 <sup>th</sup>	Poster Presentations I
Mar. 27 <sup>th</sup>	Poster Presentations II
Apr. 3 <sup>rd</sup>	Peer Review
Apr. 10 <sup>th</sup>	Creating an oral presentation
Apr. 17 <sup>th</sup>	Considerations for presenting oral presentations
Apr. 24 <sup>th</sup>	Etiquette at science conferences

Census Date is January 29<sup>th</sup>.

According to the UT Tyler Handbook of Operating Procedures: "The information contained in the course syllabus, other than the grading criteria and absence and make- up policies, may be subject to change with reasonable advance notice as long as the change is without prejudice to the students."

## Student Resources

Resources to assist you in this course

- [UT Tyler Student Accessibility and Resource \(SAR\) Office](#) Links to an external site.

(provides needed accommodations to students with document needs related to access and learning)

- [UT Tyler Writing Center](#). Links to an external site.
- [The Mathematics Learning Center](#). Links to an external site.
- [UT Tyler PASS Tutoring Center](#). Links to an external site.
- [UT Tyler Supplemental Instruction](#). Links to an external site.
- [Upswing \(24/7 online tutoring\) - covers nearly all undergraduate course areas](#). Links to an external site.
- [Robert Muntz Library](#) and [Library Liaison](#). Links to an external site.
- [Canvas 101](#). (learn to use Canvas, proctoring, Unicheck, and other software). Links to an external site.
- LIB 422 -- Computer Lab where students can take a proctored exam
- [The Career Success Center](#). Links to an external site.
- [UT Tyler Testing Center](#). Links to an external site.
- [Office of Research & Scholarship Design and Data Analysis Lab](#). Links to an external site.

### Resources available to UT Tyler Students

- [UT Tyler Counseling Center](#) (available to all students). Links to an external site.
- [My SSP App](#) (24/7 access to Student Support Program counseling through phone or chat and online wellness resources available in a variety of languages). Links to an external site.
- [Student Assistance and Advocacy Center](#). Links to an external site.
- [Military and Veterans Success Center](#) (supports for all of our military-affiliated students). Links to an external site.
- [UT Tyler Patriot Food Pantry](#). Links to an external site.
- [UT Tyler Financial Aid and Scholarships](#). Links to an external site.
- [UT Tyler Registrar's Office](#). Links to an external site.
- [Office of International Programs](#). Links to an external site.
- [Title IX Reporting](#). Links to an external site.
- [Patriots Engage](#). Links to an external site. (available to all students. Get engaged at UT Tyler.)

## University Policies and Information

**Withdrawing from Class** - Students, you are allowed to [withdraw Links to an external site.](#) (drop) from this course through the [Withdrawal Portal Links to an external site.](#) Withdrawing from classes can impact Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please read this page, speak with your instructors, consider your options, and speak with your instructor. UT Tyler faculty and staff are here for our students and often can provide additional support options or student assistance. Please read the implications for withdrawing from a course and the instructions on using the Withdrawal portal on the [Registrar's Withdrawal page. Links to an external site.](#) Texas law prohibits students who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses

dropped at other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and financial aid for additional guidance. CAUTION #1: Withdrawing before census day does not mean you get a full refund. Please see the [Tuition and Fee Refund Schedule Links to an external site.](#) CAUTION #2: All international students must check with the [Office of International Programs. Links to an external site.](#) before withdrawing. All international students are required to enroll full-time for fall and spring terms. CAUTION #3: All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. CAUTION #4: All veterans or military-affiliated students should consult with the [Military and Veterans Success Center. Links to an external site.](#)

**Final Exam Policy:** Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the Dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members must maintain student final examination papers for a minimum of three months following the examination date.

**Incomplete Grade Policy:** If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in place of a grade only when all of the following conditions are met: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average. The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

**Grade Appeal Policy:** - Disputes regarding grades must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade; this is separate from the Application for Appeal form submitted to the Student Appeals Committee, which does not rule on grade disputes as described in this policy. If the student is not satisfied with the decision, the student may appeal in writing to the Chairperson of the department from which the grade was issued. In situations where there is an allegation of capricious grading, discrimination, or unlawful actions, appeals may go beyond the Chairperson to the Dean of the college from which the grade was issued, with that decision being final. The Grade Appeal form is found in the [Registrar's Form Library.](#) Links to an external site.

**Disability/Accessibility Services:** In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the

University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler>. Links to an external site. and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <https://www.uttyler.edu/disability-services>. Links to an external site., the SAR office located in the University Center, # 3150, or call 903.566.7079."

**Military Affiliated Students:** UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#). Links to an external site. has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

**Academic Honesty and Academic Misconduct:** The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the [Student Conduct and Discipline policy](#). Links to an external site. in the Student Manual Of Operating Procedures (Section 8).

**FERPA** - UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3 Links to an external site.](#). The course instructor will follow all requirements to protect your confidential information.

**Absence for Official University Events or Activities:** This course follows the practices related to approved absences as noted by the Student Manual of Operating Procedures ([Sec. 1 -501](#) Links to an external site.).

**Absence for Religious Holidays:** This course follows the practices related to [Excused Absences for Religious Holy Days as noted in the Catalog](#). Links to an external site.

**Campus Carry:** We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.