



BSC 401.01E: Research Literature and Seminar – Fall 2024

MWF 1:00 – 1:50 PM; STC 123

Instructor Information:

Bjorn Schmidt

Office: STC 212

Email: bjorn.schmidt@tamuc.edu

Preferred contact: email

Office Hours: MWF 11:00 – 11:50 am, or by appointment through email

Textbook & materials:

No required textbook

Access to a computer (with writing software) and d2l (myleo online) is required; all course materials will be uploaded through d2l; computers for writing assignments are also available in STC 210 outside of class times in that location

Course Description

This course provides students with the fundamentals of scientific thinking and scientific writing. The course starts with a brief overview of the history and philosophy of science as it pertains to biology. Students will learn about each step in the scientific process including empiricism, parsimony, and developing and testing hypotheses. Students will be taught how to write in scientific style, how to critically read and analyze scientific articles, how to avoid obfuscatory scribbling, establishing flow, organizing a scientific document, how to present scientific data and statistics, how to cite figures and tables, how to cite scientific sources, how to avoid plagiarism, and concepts of bioethics. Discussions and presentations of issues of current interest in the biological sciences and of related career opportunities also will be covered.

Student Learning Outcomes

- Students will practice scientific thinking and writing, specific to Biology
- Students will be understand style and types of scientific writing, be able to do primary literature searches, organize and prepare citations, and avoid plagiarism

- Students will be able to write a research report in the field with components of introduction, hypothesis, methods, results, discussion and literature cited
- Students will understand research ethics in relation to biological sciences
- Students will understand how to prepare oral and poster presentations, how to prepare a resume/cv, how to formulate a career plan, and gain advice for interview skills
- Students will be able to communicate biological science clearly and effectively in written and oral formats

Instructional Methods

Instruction will consist of in-class lectures, activities, and discussions. PowerPoints for lectures will be made available that day through d2l (myLeo Online). Announcements will be presented during class time and will also be announced in d2l system. Gradebooks will be maintained in d2l.

Course Evaluations

Seminar Summaries: Students are required to attend and write a one-page summary for each guest speaker seminar during the semester. Students are allowed one missed seminar during the semester to still receive full credit for this component of the course.

Assignments: There will be thirteen assignments during the semester (outlined in class schedule; roughly one per week). These will be the majority of the grade for the semester.

Attendance and Participation: Students are required to attend and participate in class activities throughout the semester.

Evaluation Points

Seminar Summaries – 30 points

Assignments – 130 points (10 points each)

Attendance and Participation – 10 points

Total points = 170

Grading

A: 89.96-100%

B: 79.96-89.95%

C: 69.96-79.95%

D: 59.96-69.95%

F: <59.96%

General Makeup Policy: The student is responsible for requesting a makeup when they are unable to submit the regularly scheduled assessment before the due date and must schedule the makeup by email within **2 days** after the class date. If the assessment is not made-up, the

student will receive a zero for that item. Makeup requests based on illness will need documentation of illness. Please do not attend class when sick.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Course AI Statement: AI writing tools, including predictive text generators like ChatGPT or advanced features of Grammarly, are not allowed in this course. This statement particularly applies to the lab report (writing) component of the course. Students are responsible for their own written work, and are subject to requirements and consequences of the TAMUC academic dishonesty policy and the student code of conduct for any violations of this policy:

<https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

<https://www.tamuc.edu/student-life/division-of-student-affairs/office-of-student-rights-and-responsibilities/student-code-of-conduct/>

Tentative Course Schedule (subject to change)

Please note that a component of the course will be seminar, with several guest speakers presenting about research or professional experiences in biology. Because of this component, the semester schedule will be flexible, and updated throughout the semester, based on speaker availability and scheduling. Speakers will be announced at least one week in advance and the weekly schedule (and assignment dates) will be continuously updated in d2l.

Seminars – students will need to attend and write a one-page summary of each guest speaker seminar, which will be graded as the **seminar component** of the course grade (students are allowed to miss a maximum of one seminar and get full credit for this component)

Order of topics and assignments covered in the course:

1) History and Philosophy of Science

Assignment 1: Hist. and Philosophy of Science online quiz

2) Scientific Writing Style, Types of Writing, Components of a Research Paper

3) Working with Scientific Literature – Search, Reading, Avoiding plagiarism, Citations

Assignment 2: Literature search and rewriting abstract

Assignment 3: Citations

4) Working with Scientific Names

Assignment 4: Biological Classification worksheet

5) Writing a Hypothesis

Assignment 5: Write a hypothesis for lab report (dataset and data analysis given to class)

6) Writing a Literature Review or Introduction Section

Assignment 6: Write an Introduction for lab report

7) Writing a Methods Section

Assignment 7: Write a Methods section for lab report

8) Writing a Results Section

Assignment 8: Write a Results section for lab report (including figures and tables)

9) Writing a Discussion

Assignment 9: Write a Discussion section for lab report

10) Writing an Abstract; Common Mistakes in Writing and Editing

Assignment 10: Abstract and Literature Cited; Compile Lab report

Assignment 11: Peer review editing

11) Making Oral and Poster Presentations

12) Bioethics and Ethics in Research

Assignment 12: Ethics debate teams

13) Choosing a Career Path in Biology

14) Constructing a Resume/CV

Assignment 13: Statement of career path/plan and resume/cv

15) Interview Advice

Technology Requirements:

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the *myLEO* Online Learning Management System (LMS). Below are technical requirements:

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Access and Navigation

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu

Communication and Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of *Brightspace*, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

Interaction with Instructor Statement

Response time to any questions sent by email regarding the course will be answered within 72 hours. However, students are encouraged to interact with the instructor directly during the class time and office hours, if necessary. Exceptions such as widespread internet outage apply.

Counseling Services Statement

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

Course and University Procedures/Policies:

Course Specific Procedures/Policies:

You are expected to check your TAMUC email and d2l every day to check for any announcements. Additional information about all course assessment components is provided under "Course Evaluations". Please do not attend class if feeling ill, if an illness occurs during a course assessment, please see the "General Makeup Policy" section above for guidance.

University Specific Procedures:

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx). <http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](http://www.albion.com/netiquette/corerules.html) <http://www.albion.com/netiquette/corerules.html>

TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

AI Statement

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

<https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

Students with Disabilities – ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&MCommerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1. at 903-886-5868 or 9-1-1.