BSC 201-01E BIOLOGICAL LITERATURE, CRN: 24509

COURSE SYLLABUS: Spring 2024

Credit Hours: 3 (Lectures)
Mon, Wed, Fri 8:00 – 8:50 AM, STC 127, eCompanion site: D2L @ MyLeo

INSTRUCTOR INFORMATION

Instructor of Record: Dr. Lani Lyman-Henley
Office: Science Building (STC) 237
Phone: 972-571-1042
Office Hours: M, W, F 10:00 -11:00 am; appointments as needed
Email: Lani.Lyman-Henley@tamuc.edu
Discord: Dr_Zot

Dr. Hunkar Gizem Yesilyurt
Office: Science Building (STC) 255
Office Phone: 903.886.5602
Office Hours: T & R 10:00 – 12:00, for other times, please email for an appointment
Email: HunkarGizem.Yesilyurt@tamuc.edu

Dr. Johanna Delgado-Acevedo
Office: Science Building (STC) 262
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Office Hours: M & W 10:00 – 12:30
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Dr. Bjorn Schmidt
Office: Science Building (STC) 212
Phone: 903.886.5938
Office Hours: TBA, or by appointment through email
Email: Bjorn.Schmidt@tamuc.edu

Dr. Venugopalan Cheriyath
Office: Science Building (STC) 261
Phone: 903-468-6064
Office Hours: TBA
Email: Venu.Cheriyath@tamuc.edu
Home Page: http://sites.tamuc.edu/vcheriyath/

The syllabus/schedule are subject to change.

Dr. Hyun-Joo Nam
Office: Science Building (STC) 215
Phone: 903-468-3271
Office Hours: TBA
Email: hyun-joo.nam@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Course Meeting Time/Place: online (web based course)

This is a web enhanced course. There will be multiple reading assignments and other materials posted in the course website in myLEO Online. Students are responsible for keeping up with all such assignments.

Textbook(s): Recommended but not Required
Knisely, K. 2017. A Student Handbook for Writing in Biology. 5th Edition. Sinauer Associates/W.H. Freeman and Co. ISBN-13: 978-1319121815

Pechenik, J. A. 2009. A Short Guide to Writing about Biology, 9th Edition. Pearson. ISBN-13: 978-0321984258

Software Required: Please see technology requirements.

Optional Texts and/or Materials: N/A

Course Description

This course provides students with the fundamentals of scientific thinking and scientific writing. The course starts with a brief description of literature searches, then reading and writing scientific papers and writing lab reports. Then there is an overview of the history and philosophy of science as it pertains to biology. Students will learn about empiricism, parsimony, and how to apply the scientific method to developing and testing hypotheses. Students will be taught how to write in scientific style; naming conventions, how to cite scientific names, how to avoid *obfuscatory scrivenry*, establishing flow, organizing a scientific document, how to write an abstract, how to present scientific data and statistics, how to cite figures and tables, how to cite scientific sources, and how to avoid plagiarism. The final part of this class deals with bioethics and the use of ethics in biological research.

Student Learning Outcomes

1. To practice scientific thinking and writing.
2. To understand literature searches, then reading and writing scientific papers and writing lab reports.
3. To develop communication skills and clarity to present ideas and explain them to the scientific community and in public.

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4. To learn about empiricism, parsimony, and how to apply the scientific method to developing and testing hypotheses.
5. To learn to organize a scientific document, how to write an abstract, how to present scientific data and statistics, how to cite figures and tables, how to cite scientific sources, and how to avoid plagiarism.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

- Proficiency in using the D2L Brightspace Learning Management System in myLEO Online
- Microsoft Word, Excel, and PowerPoint
- Other relevant graphics programs for preparing effective PowerPoint presentations

Instructional Methods

This is a heavily online course; lectures are face-to-face, but all course materials and assignment submissions will be posted in *my*LEO Online (D2L).

Student Responsibilities or Tips for Success in the Course

- Dedicated weekly study time
- Submitting assignments before deadlines
- Special accommodations, if needed, be made notifying the instructor in advance
- Regularly checking both *my*LEO Online and emails for course related announcements

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

Homework Assignments

Your grading is mainly based on homework assignments and attendance. You are required to submit all your assignments via MyLeo Online. It's your responsibility to find the appropriate location to submit each assignment and upload your homework in a timely manner. Your assignment will not be graded if it is submitted in the wrong location. You also need to submit the assignments before the deadlines set by each instructor. Failure to meet these deadlines may result in zero points.

Submitted documents must be in .rtf, .doc or .docx format; therefore, Microsoft Office is needed.

Attendance and Absences:

You are expected to attend **ALL** scheduled lectures. You are responsible for all information covered in lecture. When Sign-in sheets will be circulated; please sign your name clearly. Do not sign anyone's name but your own! Signing in for someone else is a form of academic dishonesty. Attendance has 5% of total score, and unexcused absences will result in loss of points from your final grade**.**

Grading Scheme and Assignments

Homework Assignment: Literature search	7.5
Homework Assignment: Writing an Abstract	7.5
Homework Assignment: Writing M & M and Results	7.5
Homework Assignment: History and Philosophy of Science	10
Homework Assignment: Biological Nomenclature	7.5
Homework Assignment: Writing a Hypothesis	7.5
Homework Assignment: Editing a paper	7.5
Homework Assignment: Figures and Tables	7.5
Homework Assignment: Writing Discussion	7.5
Homework Assignment: Citations	7.5
Homework Assignment: Ethics Reading Assignment	7.5
Homework Assignment: Ethics Debate	10
Attendance	5
Total	**100**

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the *my*LEO 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**.**

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Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

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.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

You are expected to check your TAMUC email and MyLeo Online every day to check for announcements. Additional information about all the assessment components including attendance, assignments, and group presentations is provided under "GRADING."

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.

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

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

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AI use in courses

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
13.99.99.R0.10 Graduate Student Academic Dishonesty
https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf

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

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

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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
Waters 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&M-Commerce 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.

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COURSE OUTLINE / CALENDAR

Weeks 1 -3 (January 10 – 26), Dr.Hunkar Gizem Yesilyurt

Note: Classes start on Wednesday, Jan. 10

1. Developing a Literature Search Strategy
   - Database and Search Engines for Scientific Literature
   - Comparison of databases
   - Database Search Strategies
   - Evaluating Search Results
   - Managing References (Citations)
   - (**Homework: Literature search**)

2. Reading and Writing Scientific Papers
   a. Types and Hallmarks of Scientific Writing
   b. Format
   c. Documenting References
   d. Strategies for Reading Journal Articles
   e. Plagiarism
   f. Benefits

   (**Homework: Re-write the abstract in your own words**)

3. Preparing a Laboratory Report
   a. Timetable
   b. Getting Started
   c. Starting with Materials and Methods Section
   d. Results Section
   e. Make Correction
   f. Documenting Sources

   (**Homework: Re-write the materials and methods plus ONE set of matching results**)

Weeks 4 – 6 (January 29 – February 16), Dr. Johanna Delgado-Acevedo

History and Philosophy of Science with Emphasis on Biology –
An Introduction to Logic and Scientific Thinking
(**Homework: History and Philosophy of Science**)

Weeks 7 & 8 (February 19 – March 1), Dr. Bjorn Schmidt

1. Biological Nomenclature
   a. Classification
   b. Binomial nomenclature
   c. Conventions in other standardized name systems

   (**Homework: Biological Nomenclature**)

2. Scientific Writing Styles and Editing Scientific Papers
   a. Style conventions
   b. Grammar and organization
   c. Editing

   (**Homework: Editing a paper**)

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Weeks 9 & 10 (March 4 - 22), Dr. Venu Cheriyath

<Note: No classes during Spring Break March 11-15>

1. Hypothesis Testing – Principle of Parsimony (Occam's Razor)
(**Homework: Writing a Hypothesis**)

2. How to Present Data
   a. Figures and tables from published sources
   b. Data management and spreadsheets
   c. Figures and tables from original sources
(**Homework: Write Results**)

3. How to Write a Discussion – Not Just a Restatement of Results
(**Homework: Write Discussion**).

Weeks 11 & 12 (March 25 – April 5), Dr. Hyun-Joo Nam

1. Literature Search
   a. What is a primary source of literature?
   b. What are good sources of scientific information
   c. How to search databases and internet
   d. Citation management tools, e.g. Endnote

2. How to Cite References (Citation-Sequence and Name-Year Systems)
   a. Avoiding plagiarism by using citations
   b. Avoid using quotes
   c. Avoid citing papers based solely on citation by others
(**Homework: Citations**)

Weeks 13 – 16 (April 8 – 30) Dr. Lani Lyman-Henley

1. Bioethics and Ethics in Research
(**Homework: Ethics Reading Assignment**)

2. Presentations: Talks & Posters

3. Bioethics Debates
(**Homework: Ethics Debate**)

Note: No classes meet during Study Days, May 1-3

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