

Online Journal Club Syllabus and Guidelines

MCB7922 – Using Artificial Intelligence as a Tool to analyze the Primary Literature in Environmental Microbiology

Fall 2023

Course Description for Journal Club:

This course is an online forum where students will be required to present a primary literature paper to a group where fellow students will comment and ask questions regarding the paper content. The principal goals of this blog-based Journal Club are to: (a) enhance graduate students' understanding of the current state of knowledge regarding the field of environmental microbiology and or astrobiology; (b) provide experience in reviewing and critiquing research articles; and (c) use current Artificial Intelligence technologies to analyze and interpret current primary literature. Each week a different student will lead the discussion by posing several questions to the rest of the group that critically evaluates peer-reviewed science articles for subsequent group discussion threads that reinforces the principles of various research approaches and analytical methods. This course will also help students to develop their scientific inquiry and written skill sets.

Instructor:

Dr. Jamie Foster, Professor, Microbiology and Cell Science

Course Website:

Login available through Canvas <https://elearning.ufl.edu/>

Contact Information:

I am located off-campus at the UF Space Life Sciences Lab, Kennedy Space Center

My contact information is: **Tel:** 321-525-1047; **Email:** jfoster@ufl.edu;

Prerequisites: No prerequisites are required

Required Texts: No texts are required

Synopsis: How will this online journal club work?

Each week a different student will write a short review of a research paper for the class using an Artificial Intelligence (AI) platform (e.g., ChatGPT) and lead a group discussion using UF course management system in Canvas to discuss the accuracy of the AI output and any potential problems or advantages using the technologies. Every student will have an opportunity to lead one discussion over the course of the semester.

The rest of the class will be required to read the paper and the AI generated report and examine and comment on the potential strengths and weaknesses of using AI technology to analyze primary literature in science.

Each week a new research paper and AI generated review will be presented. Students have the entire week to contribute to the discussion about the blog. **DO NOT WAIT UNTIL THE LAST DAY TO PARTICIPATE OR THAT WILL NEGATIVELY IMPACT YOUR GRADE.**

Grading:

Leading a Group Discussion (10% of grade)

You will pick one week to lead a discussion. You will be assessed on your participation and ability to lead the group discussion.

Generating an Artificial Intelligence review of a primary literature review (10% of grade)

In the week that you serve as group discussion leader, you will use any AI platform you wish (e.g., ChatGPT) to ask the AI platform to generate a short synopsis of the weekly primary literature article. You will then post that synopsis, which will serve as the major thread for the weekly discussion of how accurate or inaccurate the AI generated synopsis was

Discussion participation when not the group leader (80% of your final grade)

Post, Post, Post....

Your grade for this section of the course will be assessed based on whether you are posting to the discussion board with relevant threads or questions about that week's material.

I will be moderating the week's discussions and will be keeping track of who has and who has not participated.

Each week your posts will be assessed, and points will be assigned. **Note:** everyone will be allowed a bye-week, where they get a free pass and don't have to post. So, choose your bye-week carefully.

Rubric: I am looking for quality over quantity, however, one post is not enough. A single posting (no matter how long will only be eligible for a score of 7 points max; multiple postings that discuss the material and other student's comments is required for the full points. Please avoid posting a few hours before the window closes as your team leader will not likely be able to reply. The objective is to engage with the other students. No will be able to respond to your discussion points or comments 15 min before the deadline and that defeats the point of a discussion. **So last-minute points are not encouraged may affect your grade. The goal of this course is to facilitate quality discussions.**

Total Points: 100 points

Grading: Straight Scale

93 – 100	points 93% - 100%	A
90 – 92	points 90% - 92.9%	A-
87 – 89	points 87% - 89.9%	B+
83 – 86	points 83% - 86.9%	B
80 – 82	points 80% - 82.9%	B-
77 – 79	points 77% - 79.9%	C+
73 – 76	points 73% - 76.9%	C
70 – 72	points 70% - 72.9%	C-
67 – 69	points 67% - 69.9%	D+
63 – 66	points 63% - 66.9%	D
60 – 62	points 60% - 62.9%	D-
Less than 60 points	<60%	E

Online Course Evaluation Process For All Students

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *"On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g.

assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code> (Links to an external site.).

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability-related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting an accommodation.

0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources

Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- **University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, counseling.ufl.edu** (Links to an external site.)

Counseling Services
Groups and Workshops
Outreach and Consultation
Self-Help Library

Wellness Coaching

- **U Matter We Care, umatter.ufl.edu/ (Links to an external site.)**
- **Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/> (Links to an external site.).**

Student Complaints:

Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> (Links to an external site.).

Online Course: <http://www.distance.ufl.edu/student-complaint-process>