

BSC4936: Critical Analysis of Biological Research Fall 2025

Instructor and Teaching Assistants

Office hours: Virtual office hours via Zoom or in person as arranged. Course is 100% online. Office for T. Mutahi is Bartram Hall 214B. Zoom or visits in our physical offices can be arranged; please email your assigned TA or instructor as needed to schedule an appointment time.

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1. General Course Information

1.1 Course Description

Course open to biology, botany and zoology students in senior standing. Critical analysis of current life sciences research through online discussions and summaries of peer reviewed scientific publications. Through a PowerPoint presentation with audio, virtual exchange interaction, students interact online with global expert guest/s through lectures and Question & Answer sessions to enhance global citizenship skills. Students complete the Biology Exit Exam (BEE).

1.2 Website

Access this course website through UF e-Learning Services (<https://lss.at.ufl.edu/>). Log in using your Gatorlink username and password. The software used to host the website is "Canvas."

1.3 Required Materials

- Reliable computer and internet access that will allow completion and submission of assignments on time and completion of the Biology Exit Exam (BEE)
- Microsoft Office or equivalent (written assignments must be submitted in Word format).
- Microphone & camera for recording presentations or attending office hours via Zoom.

1.4 Course Format

- This course contains 12 distinct modules (see "Module Descriptions" below). Each module will require students to participate in a combination of activities, including:
 1. Reading a peer-reviewed scientific article (or watching a seminar video).
 2. Participating in group discussions with approximately 6-8 people.
 3. Writing a summary of a scientific article and a reflection summary.
 4. Writing a peer review of another student's article summary.
 5. Taking brief online quizzes.
 6. Participating in a Virtual Exchange Interaction with global expert guest lecturer/s with a Question & Answer time via zoom to enhance your global citizenship skills.
 7. Submitting a virtual PowerPoint presentation

8. Participating in an online role-playing exercise.
 9. Completing the Biology Exit Exam (BEE).
- These activities are described in more detail in **Section 2** below. Be aware that there are many deadlines in this course, and students should mark each of them in their calendars to stay on track. Each assignment deadline is documented in Section 2 “Module Descriptions and Dates” section of this syllabus below all due at 11:59PM EST.

2. Module Descriptions and Dates

Module 1: Introduction (40 points): Read syllabus, begin discussion and icebreaker activity.

- Ice-breaker discussion (1 post required) (Opens August 21st - Closes August 25th)
- Syllabus Discussion (1 post required) (Opens August 21st - Closes August 25th)
- Take a quiz on the syllabus (Due MON August 25th)
- Take a pre-quiz on ethics in research (Due MON August 25th)

Module 2: Discuss and Summarize a Research Paper (20 points):

Beginning with Module 2, students will be assigned discussion groups of 6-8 students. Note that all assignments other than discussions should be completed (and will be graded) individually. In Modules 3 and 4, each student will be assigned an individual peer review to complete. Group membership will be visible in the "People" section of the course's canvas page at the beginning of this module.

Research Article: Fong et.al (2024). Downscaled climate change threats to United States freshwater finfish aquaculture. Science of the Total Environment 957 (2024) 177596. <https://doi.org/10.1016/j.scitotenv.2024.177596> .

- Discuss a research article (Opens WED Aug 26th - Closes Sep 2nd)
- Initial post Due THUR Aug 28th
- Response posts Due MON Sep 1st
- Submit a summary of the article (Due TUE Sep 2nd)

Module 3: Discuss and Summarize a Research Paper and Peer Review Exercise (25 points)

Research Article: Cappuccio et al. (2010). Quantity and Quality of Sleep and Incidence of Type 2 Diabetes: A Systematic Review and Meta-Analysis" by Sleep duration and all-cause mortality: a systematic review and meta-analysis of prospective studies.

- Discuss a research article (Opens TUE Sep 2nd - Closes WED Sep 10th)
- Initial post Due THUR Sep 4th
- Response posts Due MON Sep 8th
- Submit a summary of the article (Due MON Sep 8th)
- Submit a review of peer's summary (Due WED Sep 10th)

Module 4: Discuss and Summarize a Research Paper and Peer Review Exercise (25 points)

Research Article: Wilmski et. al. (2021). Gut microbiome pattern reflects healthy ageing and predicts survival in humans. DOI: 10.1038/s42255-021-00348-0

- Discuss a research article (Opens WED Sep 10th - Closes WED Sep 17th)
- Initial post Due THUR Sep 11th
- Response posts Due SAT Sep 13th
- Submit a summary of the article (Due MON Sep 15th)
- Submit a review of peer's summary (Due WED Sep 17th)

****** HOMECOMING: Oct 17-18th******

Module 5: Discuss a Research Paper, Virtual Guest Lecture, and Present a PowerPoint with Audio (20 points)

Research Article: Lopez-Martínez et. al (2023). Plastic ingestion by two cetacean groups: Ziphiidae and Delphinidae. <https://doi.org/10.1016/j.envpol.2023.121932>

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| Discuss a research article | (Opens WED Sep 17th - Closes WED Sep 24th) |
| ○ Initial post | Due THUR Sep 18th |
| ○ Response posts | Due MON Sep 22 nd |
| ○ Attend virtual guest expert Q&A session | TBD |
| ○ Submit a virtual PowerPoint presentation | (Due WED Sep 24th) |

Module 6: Participate and Discuss Ethics Role-Play Activity and Quiz (30 points)

Content: The Lab: Avoiding Research Misconduct. 2024. USHHS, ORI. **The Lab**

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| ○ Discuss ethics in research | (Opens WED Sep 24th- Closes TUE Sep 30th) |
| ○ Initial post | Due THUR Sep 25th |
| ○ Response posts | Due MON Sep 29th |
| ○ Take a quiz on ethics in research | (Due TUE Sep 30th) |

Module 7: Seminar Discussion and Quiz (20 points)

Seminar: *Exploring the crossroads of attention and memory in the aging brain.*

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| ○ Discuss the assigned seminar | (Opens WED 1 st OCT -Closes TUE 7 th OCT) |
| ○ Initial post | Due THUR 2 nd OCT |
| ○ Response posts | Due MON 6 th OCT |
| ○ Take a quiz on the seminar | (Due TUE 7 th OCT) |

Module 8: Discuss and Summarize a Research Paper and Reflection Exercise (30 points)

Research Article: Fuller et al 2022. Pollution and health: a progress update. Lancet Planet Health 2022; 6: e535-47. <https://doi.org/10.1016/>

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| ○ Discuss a research article | (Opens WED 8 th OCT - Closes FRIDAY 17 th OCT) |
| ○ Initial post | Due THUR 9 th OCT |
| ○ Response posts | Due MON 13 th OCT |
| ○ Submit a Reflection summary | (Due FRIDAY 17 th OCT) |

Module 9: Discuss and Summarize a Research Paper and Reflection Exercise (30 points)

Research Article: Luo M., Yang W., Bai L., et al., (2024). Artificial intelligence for life sciences: A comprehensive guide and future trends. The Innovation Life 2(4): 100105. <https://doi.org/10.59717/j.xinn-life.2024.100105>

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| ○ Discuss a research article | (Opens MON 20 th OCT - Closes FRIDAY 31 st OCT) |
| ○ Initial post | Due THUR 23 rd OCT |
| ○ Response posts | Due MON 27 th OCT |
| ○ Submit a Reflection summary | (Due FRIDAY 31 st OCT) |

Module 10: Discuss and Summarize a Research Paper and PowerPoint presentation (30 points)

Research Article: AI-based mobile application to fight antibiotic resistance. NATURE COMMUNICATIONS | (2021) 12:1173 | <https://doi.org/10.1038/s41467-021-21187-3> | <https://rdcu.be/ecCHU>

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| ○ Discuss a research article | (Opens MON Nov 3 rd - Closes 13th Nov) |
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- Initial post Due THUR 6th Nov
- Response posts Due MON 10th NOV
- Submit a PowerPoint presentation (Due THUR 13th Nov)

Module 11: Discuss and Summarize a Research Paper and Project Report Exercise (35 points)

Research Article: Luo M., Yang W., Bai L., et al., (2024). Artificial intelligence for life sciences: A comprehensive guide and future trends. The Innovation Life 2(4): 100105.

<https://doi.org/10.59717/j.xinn-life.2024.100105>

- Discuss a research article (Opens FRI 14th NOV - Closes FRIDAY 21st NOV)
- Initial post Due MON 17th NOV
- Response posts Due WED 19th NOV
- Submit a Project Report (Due FRIDAY 21st NOV)

Module 12: Take the Biology Exit Exam (BEE) (100 points):

- **Take the online biology exit Exam TUESDAY 2nd December (7AM to 7PM EST)**
- **Test Overview:**
 - The BEE is a 75 minutes test given primarily online proctored by honor lock. The University of Florida uses the results to assess student learning outcomes. It is in your best interest to try to do well on this exam. Study resources will be shared via a class announcement.
- **Scheduling: Curve out about 2 hours on second December between 7am and 7pm to complete your test on canvas proctored by Honor lock.**
- **Additional Information:**
 - The following link contains more information about a related exam and a set of sample questions: <https://www.ets.org/mft/about/test-content.html>
 - A suggested study schedule for topics is provided below:

Suggested Review Schedule for Preparation to take the Biology Exit Exam (BEE)	
Week	Biology Exam Topics*
1	Biochemistry & Cell Energetics
2	Cellular Structure, Organization & Function
3	Molecular Genetics
4	Heredity
5	Diversity of Organisms
6	Animal Organ Systems
7	Animal Reproduction, Growth & Development
8	Plant Organ Systems
9	Plant Reproduction
10	Population Genetics & Natural Selection; Patterns of Evolution; Environmental Factors
11	Population Ecology; Community Ecology
12	Ecosystems
13	Human Impacts
Analytical skills are assessed withing each of the above topics	
*Use your BSC 2010 and 2011 (or equivalent) textbook for review. Go to this website to find specific subtopics: https://www.ets.org/s/mft/pdf/mft_testdesc_biology_4gmf.pdf	

3. Assignment Guidelines

Submitting assignments: *When submitting assignments electronically via Canvas, you are responsible for ensuring that all your work is uploaded correctly and completely by the deadline. Corrupted files will be treated as missing work (= 0 grade) until they are reuploaded correctly and late penalties will apply if your resubmission is past the deadline. So, please always double check your files right after you upload them! If you experience technical problems when submitting your work in Canvas, contact the UF Computing Help Desk for assistance: <https://helpdesk.ufl.edu>. Emailed or paper submissions for Canvas assignments will not be accepted.*

3.1 Discussion Assignments

- The purpose of this course is to give students an opportunity to engage in discussion, which is a necessary component of scientific thinking and discourse. You may find yourself in debates with your peers, which is an indication that you are thinking critically about yours and others' claims. In order to maintain a culture of respect in our course, please follow two basic guidelines.
First, back up your claims with evidence and/or scientific explanation.
Second, keep the discussion about scientific ideas, not about the people presenting them.
Offensive or abusive comments will not be tolerated.
- *Discussion posts will be graded based on the discussion rubric given for each assignment's discussion.*

- The date associated with each discussion on Canvas is the due date (i.e. the final day posts can be made). The opening and closing dates for each discussion are listed in the module descriptions above.
- **Late discussion posts will ***not*** be accepted!** Students cannot participate in a closed online discussion in which other students have already moved on to the next module.
- **Note, this course is 100% online. Students may access the course using the Canvas app on their phones if necessary to meet discussion timelines.**

2. Post Content:

- Each post must reflect genuine engagement in, and contribution to, the discussion. Posts that do not contribute new thoughts or questions to the discussion (e.g. “I agree with that.”) will not receive credit. Inappropriate and off-topic posts will also not receive credit.
- Keep the following guidelines in mind when participating in discussions:
 - When discussing an article, make connections between its content and your life. The point of the discussion is to provide a casual and thought-provoking environment to share what you think. If you find a website that relates to the topic, share it. If you have a funny story that relates, tell it. If material from previous courses comes to mind, share it. Do not be afraid to go beyond the article to have an authentic discussion on its importance and relevance to your life.
 - Make your comments to your peers’ discussion posts about the science and their ideas, not the quality of writing. Be assertive in your posts and share your original thoughts. If the sum of your posts amounts to you agreeing with your group mates’ or other scientists’ claims and not stating anything unique, you should not expect to receive full credit.
 - Remember that your interactions are meant to be discussions, not statements. Therefore, there should be substantial back-and-forth between group members over the course of every module. In other words, do not simply state what you think—respond to what others think.
 - When discussing scientific topics, it is inevitable that someone will express a misconception about a scientific principle. When this happens, it is the responsibility of the group to correct the misconception while still maintaining a respectful, productive atmosphere.

3.2 Summary Assignments

- The goals of writing these summaries are to: (1) learn how to identify the most important parts of an article (2) practice concise yet accurate scientific communication and (3) brush up on instances of relevant and/or current biology-related research before you graduate.
- Writing Article Summaries
 - Preparing a summary of a paper is not an easy task. Oftentimes the abstract or summary of a peer-reviewed paper is difficult part to write. Reading abstracts of scientific journal articles is a good way to introduce yourself to how scientists write concisely.
- Summary Format
 - Article summaries must be a Word Document (.docx) with double-spaced, 12-point text.
 - Place your name and the word count at the top of the page and include a title.
 - The length of the summary (excluding name, word count, and title) should not exceed 225 words.
 - Do not use (or reference) figures or tables in the summary.
 - The body of your summary must be structured into four paragraphs as follows:

1. A clear statement summarizing the primary purpose of the article. This may include the main scientific question or aspects of the hypothesis that the authors are addressing. It can often be termed “aims” or “objectives” in different papers. If there are multiple hypotheses, summarize the overarching theme from them.
 2. A description of the specific numerical results used by the authors, with particular emphasis on the data that support the overall conclusions of the study.
 3. A discussion of one or more broad implications of the study.
 4. A detailed and specific description of additional research that would build on the findings of the paper.
- Please see the assignment description on Canvas for more detailed instructions.

3.3 Peer Review Assignments

- Reviewing a peer's work is very common among scientists and is a courtesy that can be learned. Peer-review or critique of another scientist's research paper is an important quality review process before a research article can be published. More information about peer reviews here <https://lib.dmu.edu/su/ethicaldoc/peerreview>. **(Peer review samples will be shared in module 3)**
- **When Writing Peer Reviews...**
 - Please note that although a peer review may include positive comments *it usually does not include gushing statements or praises*. The authors of the paper being reviewed are not looking for praise, but instead, they are hoping that another set of eyes will catch anything that might cause the paper to be rejected by the journal editor or anonymous reviewers (e.g., erroneous information presented, formatting issues, etc.). Most of the time, journal editors are attuned to reasons to reject a submitted paper, rather than reasons to accept a flawed paper.
 - *Your peer review will be graded on how well you comment on how the summary could be improved using the guidance provided regarding writing summaries. Your review must explicitly address how each of the four elements of the summary could be improved.*
- **Peer Review Format**
 - Peer reviews must be a Word Document (.docx) with double-spaced, 12-point Arial font.
 - The length of the peer review (excluding name, word count, and title) should be between 200-250 words.
 - **Page 1:**
 - Copy your peer's summary onto the first page (including their name, word count, and title)
 - **Page 2:**
 - Place your name and the word count at the top of the page and include a title.
 - The body of your peer must be structured into four paragraphs as follows:
 1. The first paragraph should begin with "The author's description of the primary purpose of the paper could be improved by..."
 2. The second paragraph should begin with "The author's use of specific data in support of the primary purpose could be improved by..."
 3. The third paragraph should begin with "The author's review of the major implications could be improved by..."
 4. The fourth paragraph should begin with "The author's description of additional research needed could be improved by..."

3.4 Virtual Powerpoint Presentation

- This course requires students to submit a 5-minute, virtual PowerPoint presentation (.pptx format) **with embedded audio that advances automatically once the presentation is started.** More details will be provided on Canvas. Please make sure you have access to a well-functioning computer or a microphone that will allow you to record audio (built-in laptop microphones are fine). The functioning computer is also needed for the biology exit exam (BEE). This test cannot be done using a workplace computer due to issues like blocking of necessary pop ups related to the external test websites by some institutions.

3.5 Quizzes

- Online quizzes will be administered through Canvas. Each quiz will be available for one full day (24 hours, dates listed in the module descriptions above). Quizzes are graded automatically, and only one attempt per quiz is allowed.

4. Policies and Support

4.1 Grading

- **There are a total of 405 points available in this course.**
- Final grades will be determined based on the GPA scale below (see table, below).
- BEE grade points will be determined based on the overall score on the exam.

Percentage	Letter Grade	GPA Equivalent
> or = 90.00	A	4.0
86.7–89.9	A-	3.67
83.3–86.6	B+	3.33
80.0–83.2	B	3.0
76.7–79.9	B-	2.67
73.3–76.6	C+	2.33
70.0–73.2	C	2.0
66.7–69.9	C-	1.67
63.3–66.6	D+	1.33
60.0–63.2	D	1.0
56.7–59.9	D-	0.67
<56.7	E	0

For more information on grades and grading policies, please visit:
<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

Disputing a grade: If you wish to dispute a grade for any exam/assignment, you must contact your assigned TA in writing within 7 days from when the assignment has been returned. In your message, you must include a specific explanation for why you think the grade is incorrect and how you think it should be changed. The instructor/TA will then arrange a meeting with you to discuss the issue and determine whether or not the grade should be changed. The grade assigned following this meeting will be final.

4.2 Changes to the Course or Syllabus

- The instructor reserves the right to make changes to the course, schedule, and syllabus. If any

changes occur, students will be informed through a Canvas announcement, and a revised syllabus will be posted.

4.3 Late Work

- Without a valid, documented excuse, late assignments will receive a penalty of -20% of the maximum score for each day they are late (e.g., -2 points for a 10 point assignment for each day they are late). **Late discussion posts will not be accepted.** Revisions to submitted assignments will not be accepted.
- Documentation of a valid excuse (e.g. a doctor's note) is required to avoid a late penalty. **Please contact your assigned instructor as soon as possible if you will be unable to complete an assignment- preferably within 3 days with the note attached for unforeseen medical emergencies.**
- **Note: Discussion posts cannot be made up under any circumstance.**

4.4 Communication with Instructors

- It is best to use Canvas message utility for communication with the instructors. This will typically result in a more prompt response than email, and allows the instructors to organize correspondence with students more efficiently.
- The Canvas site for this course also contains an ongoing discussion titled "Raise your Hand" This is a good place to post questions about the course. Before posting a new question or contacting an instructor, students should check this discussion to see if their question has been answered in a previous post.

4.5 IT Support

- It is the student's responsibility to maintain access the course website on Canvas. Any unexpected difficulties related to accessing the site, submitting assignments, etc. should be brought to the attention of the UF Computing Help Desk (accessible via "Help" in canvas, or at <https://my.it.ufl.edu/CherwellPortal/UFITServicePortal>).

4.6 Academic Integrity

- All students registered at the University of Florida have agreed to comply with the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University." In addition, on all work submitted for credit the following pledge is either required or implied: "On my honor I have neither given nor received unauthorized aid in doing this assignment." If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). Kermit the Frog can be reached at (867- 5309). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines [4.040-1.pdf](#) and [Student Honor Code and Student Conduct Code - Regulation and Policy Hub](#). Violations may result in disciplinary action under the UF Student Honor Code.

4.7 Accommodations for Students with Disabilities

- Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <https://dso.ufl.edu>. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

4.8 Software Use

- All faculty, staff and student 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.

4.9 Attendance and Make-ups

- Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.
- Refer to the above link for more information on the university's attendance policy.

4.10 AI Policy and Enforcement

The final product submitted for grading must be the student's own work. Instructors have the right to use AI detection tools to check students' submissions for AI-generated content. Plagiarism, including from AI sources, is not permitted. It is the student's responsibility to understand and follow these AI policies. Violations may result in disciplinary action under the UF Student Honor Code.

4.11 Course Evaluations

- 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 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 ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>

4.12 Virtual Recordings

- Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student

participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

5. Campus Resources

5.1 Health and Wellness; U Matter, We Care

- If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.
- **Counseling and Wellness Center:** Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.
- **University Police Department:** Visit UF Police Department website or call 352-392-1111 (or 9- 1-1 for emergencies).
- **UF Health Shands Emergency Room / Trauma Center:** For immediate medical care, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608.
- **GatorWell Health Promotion Services:** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

5.2 Academic Resources

- **E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu. **Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services. **Library Support:** Various ways to receive assistance with respect to using the libraries or finding resources. **Teaching Center:** Broward Hall, 352-392- 2010 or to make an appointment 352- 392-6420. **General study skills and tutoring.** **Writing Studio:** 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. **Student Complaints On-Campus:** Visit the Student Honor Code and Student Conduct Code webpage for more information. **On-Line Students Complaints:** View the Distance Learning Student Complaint Process.

5.3 Procedure for Conflict Resolution

- Any classroom issues, disagreements or grade disputes should be discussed first between the assigned instructor/TA and the student followed by the lead instructor if still unresolved. If the problem cannot be resolved, please contact the undergraduate Coordinator or the

Department Chair. Be prepared to provide documentation of the problem, as well as all graded materials for the semester. Issues that cannot be resolved departmentally will be referred to the University Ombuds Office (<http://www.ombuds.ufl.edu>; 392-1308) or the Dean of Students Office (<http://www.dso.ufl.edu>; 352-392-1261). For further information refer to https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf (for residential classes) or <http://www.distance.ufl.edu/student-complaintprocess> (for online classes).

5.4 Course Content

- Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructors view. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief. All discussions need to be respectful of all classmates and/or instructors.

6. Privacy and Accessibility Policies

For information about the privacy policies of the tools used in this course, see the links below:

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Microsoft
 - [Microsoft Privacy Policy](#)
 - [Microsoft Accessibility](#)
- Sonic Foundry (Mediasite Streaming Video Player)
 - [Sonic Foundry Privacy Policy](#)
 - [Sonic Foundry Accessibility](#)
- Vimeo
 - [Vimeo Privacy Policy](#)
 - [Vimeo Accessibility](#)
- YouTube (Google)
 - [YouTube \(Google\) Privacy Policy](#)
 - [YouTube \(Google\) Accessibility](#)
- Zoom
 - [Zoom Privacy Policy](#)
 - [Zoom Accessibility](#)

Module	Assignment	Open	Close	Associated Material
1	Ice Breaker Discussion (1 post required)	21-Aug	25-Aug	Syllabus
	Syllabus Discussion (1 post required)			
	Syllabus Quiz			
	Ethics Pre-Quiz			
2	Article Discussion (3 posts required)	26-August	2-Sep	Fong et.al (2024) Downscaled climate change threats to United States freshwater finfish aquaculture. Science of the Total Environment 957 (2024) 177596. https://doi.org/10.1016/j.scitotenv.2024.177596 .
	Initial Post		28-Aug	
	Response Posts		1-Sep	
	Submit a summary of the article		2-Sep	
3	Article Discussion (3 posts required)	2-Sep	10-Sep	Quantity and Quality of Sleep and Incidence of Type 2 Diabetes: A Systematic Review and Meta-Analysis" by Cappuccio et al. (2010). Sleep duration and all-cause mortality: a systematic review and meta-analysis of prospective studies.
	Initial Post		4-Sep	
	Response Posts		8-Sep	
	Submit a summary of the article		8-Sep	
	Submit a review of peer's summary		10-Sep	
4	Article Discussion (3 posts required)	10-Sep	17-Sep	Wilmaski et. al. (2021). Gut microbiome pattern reflects healthy ageing and predicts survival in humans. DOI: 10.1038/s42255-021-00348-0
	Initial Post		11-Sep	
	Response Posts		13-Sep	
	Submit a summary of the article		15-Sep	
	Submit a review of peer's summary		17-Sep	
5	Article Discussion (3 posts required)	17-Sep	24-Sep	Lopez-Martínez et. Al (2023). Plastic ingestion by two cetacean groups: Ziphiidae and Delphinidae. https://doi.org/10.1016/j.envpol.2023.121932
	Initial Post		18-Sep	
	Response Posts		22-Sep	
	Attend virtual guest expert Q&A session		TBD	
	Submit a virtual PowerPoint presentation		24-Sep	
6	Ethics/ Role-Play Discussion (3 posts)	24-Sep	30-Sep	The Lab: Avoiding Research Misconduct. 2024. USHHS, ORI. The Lab
	Initial Post		25-Sep	
	Response Posts		29-Sep	
	Take a quiz on ethics in research		30-Sep	
7	Seminar Discussion (3 posts & quiz required)	1-Oct	7-Oct	Exploring the crossroads of attention and memory in the aging brain.
	Initial Post		2-Oct	
	Response Posts		6-Oct	
	Seminar Quiz		7-Oct	
8	Article Discussion (3 posts required)	8-Oct	17-Oct	Fuller et al 2022. Pollution and health: a progress update. Lancet Planet Health 2022; 6: e535-47. https://doi.org/10.1016/
	Initial Post		9-Oct	
	Response Posts		13-Oct	

	Submit a Reflection Summary		17-Oct	
9	Article Discussion (3 posts required)	20-Oct	31-Oct	Luo M., Yang W., Bai L., et al., (2024). Artificial intelligence for life sciences: A comprehensive guide and future trends. The Innovation Life 2(4): 100105. https://doi.org/10.59717/j.xinn-life.2024.10010
	Initial Post		23-Oct	
	Response Posts		27-Oct	
	Submit a Reflection Summary		31-Oct	
10	Article Discussion (3 posts & 1 presentation required)	3-Nov	13-Nov	AI-based mobile application to fight antibiotic resistance. NATURE COMMUNICATIONS (2021) 12:1173 https://doi.org/10.1038/s41467-021-21187-3 https://rdcu.be/ecCHU
	Initial Post		6-Nov	
	Response Posts		10-Nov	
	Submit a PowerPoint Presentation		13-Nov	
11	Article Discussion (3 posts & project report required)	14-Nov	21-Nov	Luo M., Yang W., Bai L., et al., (2024). Artificial intelligence for life sciences: A comprehensive guide and future trends. The Innovation Life 2(4): 100105. https://doi.org/10.59717/j.xinn-life.2024.10010
	Initial Post		17-Nov	
	Response Posts		19-Nov	
	Submit a Project Summary		21-Nov	
12	Take the Biology Exit Exam (BEE)	2-Dec		BSC 2010/BSC 2011 Textbook