

BIOLOGY 498WI/H498WI
Critical Analysis of Biological Issues:
The Evolution of Animal Behavior

Spring 2021

Department of Genetics, Developmental, and Evolutionary Biology
School of Biological and Chemical Sciences
University of Missouri-Kansas City

Instructor: Dr. Jess Magaña

Office: Biological Sciences Building 190,
(816) 235-2282

Email: maganajl@umkc.edu

Response policy: within 24 hours

Virtual Office Hours: Tues 10:00-11:00
am, Tues 1:00-2:00 pm, Wed 2:30-3:30 pm,
or by appointment. Link through Canvas.

Meeting Location and Time:

Online, Asynchronous. Students are not
required to meet as a class at a specified
time. Most assignment deadlines are 11:59
pm on Mondays and Wednesdays.

Credits: 3 credit hours

Catalog Number: Biology 498WI: 14242;
Biology H498WI: 14193

Section: Biology 498WI: 0006;
Biology H498WI: 0001

1. Course Description

Why do animals do what they do, and how do we know? This three-credit-hour course explores evolutionary influences on animal behavior and the challenges associated with developing and testing hypotheses. Students will develop critical analysis skills and effective written and oral communication skills by reading scientific articles, discussing methodology and implications, writing analytical papers, and communicating through oral presentations.

Honors component: Students who wish to earn Honors credit for this class will write a position paper on a question of scientific interest related to animal behavior, or develop an independent project.

2. Course Details

Instructional mode: Online Asynchronous Instruction

Course attributes: Writing Intensive

Course format: Lecture Required

Prerequisites: No courses specified. Enrollment limited to undergraduates in the School of Biological Sciences.

3. Student Learning Outcomes

At the end of the course students will be able to:

- Summarize the contents of select research papers in biology in both written and oral platforms.
- Describe the methodologies and implications in those research papers.
- Evaluate strengths and weaknesses in specific scientific literature.

4. Required Texts

All assigned readings are available at no charge through the course Canvas site.

5. UMKC Policies and Resources

Important UMKC Resources and Policies are applicable to every course and every student at UMKC. These are located in the Canvas site for this course under the “Support & Policies” tab. As a UMKC student, you are expected to review and abide by these policies. If you have any questions, please contact your instructor for clarification. This course follows the “Faculty allowing recording” option of the Academic Inquiry, Course Discussion and Privacy policy

5.1. Grade Appeal Policy

SBC Grade Appeal Policy: Students are responsible for meeting the standards of academic performance established for each course in which they are enrolled. The establishment of the criteria for grades and the evaluation of student academic performance are the responsibilities of the instructor. The grade appeal procedure is available only for review of allegedly capricious grading and not for review of the instructor's evaluation of the student's academic performance. Capricious grading, as that term is used here, comprises any of the following:

- The assignment of a grade to a particular student on some basis other than the performance in the course;
- The assignment of a grade to a particular student according to more exacting or demanding standards than were applied to other students in the course; (Note: Additional or different grading criteria may be applied to graduate students enrolled for graduate credit in 300- and 400-level courses.)
- The assignment of a grade by a substantial departure from the instructor's previously announced standards.

If a student wishes to appeal their grade, the student should first discuss the issue fully with the instructor of the course. If the issue is not resolved with informal discussion, the student may appeal the grade to the course coordinator by the submission of a SBC Grade Appeal Form. This must be done after the instructor submits grades to the Registrar and before the end of the sixth week in the succeeding regular academic semester. If the matter is not resolved satisfactorily for the student, further review is through the Department Head for the course: Dr. Leonard Dobens, dobensl@umkc.edu, BSB 350. Following the Departmental review, the student may appeal to the Dean of the SBC. Following the Dean's review, the student may appeal to the Provost, or their designee. The decision of the Provost Office is final. The UMKC grade appeal policy is available at the Provosts web site.

5.2. Writing Studio

The staff of the Writing Studio assist all levels of writers at UMKC. Consultants can help you develop ideas for your papers, articulate your thesis, organize your material, and hone your grammar skills. You are strongly encouraged to take advantage of the Writing Studio's free services. You can visit www.tutortrac.umkc.edu or <https://www.umkc.edu/writingstudio/> to schedule a Zoom appointment, request an email session, or use drop-in times.

6. Course Policies

6.1. Late Projects

As many of the skills developed in this course build on previous skills, it is important to turn in projects by posted deadlines. Late projects will be accepted for half credit (50% of the project's grade) if turned in within 24 hours of the posted deadline, and will not be accepted more than 24 hours after the posted deadline. If you encounter a problem meeting an assignment due date, please talk to Dr. Magaña before the deadline.

6.2. Withdraw Policy

Students may withdraw from the course at any time, consistent with UMKC withdraw deadlines. If you are concerned about your grade or any other aspect of the course, you are encouraged to discuss your concerns with Dr. Magaña.

6.3. Plagiarism

Intentionally using someone's words or ideas as your own is a serious offense in the university that can result in reprimand, suspension, and expulsion. We will review proper citation and documentation of sources in class. If you have further questions, please see Dr. Magaña. If plagiarism is detected on any assignment, you will receive zero credit for that assignment.

6.4. Instructor Evaluation

Evaluations for instructors for courses offered by the School of Biological and Chemical Sciences will be available online during the last two weeks of the semester through RooEval. Your comments are valuable and are kept anonymous and confidential.

7. Grading Scales

7.1. BIOLOGY 498WI

90-100% A	60-69.9% D
80-89.9% B	0-59.9% F
70-79.9% C	

7.2. BIOLOGY H498WI

93-100% A	80-83.9% B-	67-69.9% D+
90-92.9% A-	77-79.9% C+	64-66.9% D
87-89.9% B+	74-76.9% C	60-63.9% D-
84-86.9% B	70-73.9% C-	0-50.9% F

At the end of the semester, when final grades are calculated, your grade will be automatically rounded up to the next highest letter grade (e.g., C to B for Biology 498WI; e.g., B- to B for Biology H498WI) if your total points are within 4 points of the cut-off for that higher letter grade. No grade will be rounded down.

8. Grade Distribution: Projects

Discussions = 120 points

Team Presentation = 100 points

Writing Skills = 40 points

Reflections = 30 points

Article Papers = 140 points

Term Paper = 170 points

Honors Project = 100 points

Total: 600 points (or 700 points for Honors credit)

9. Projects

More details and rubrics are available on Canvas. Upload documents to Canvas in Microsoft Word format. The file must be readable to earn credit (i.e., if the file will not open it receives zero credit).

- Discussion contributions: 120 points
 - 12 discussions, 10 points each
 - Participation in discussions could involve asking questions, summarizing the methods and results of the experiments, drawing comparisons to other articles, or suggesting implications and future research.
- Team Presentation: 100 points
 - Topic: 5 points
 - Outline: 5 points
 - Presentation: 40 points
 - Asking questions of other presenters: 40 points
 - 8 questions, 5 points each
 - Responding to questions: 10 points
 - 2 responses, 5 points each
 - No matter what career you are aiming for, you will explain complex concepts verbally at some point, and that skillset only improves with practice.
 - Students will record an audio narration for their slides and upload the narrated slides to Canvas. This can be done in PowerPoint, Google Slides, Zoom, or other methods. Instructions are posted on Canvas. If you anticipate any challenges or have any questions, discuss with Dr. Magaña as soon as possible.
- Writing skills: 40 points
 - 8 activities, 5 points each
- Reflections: 30 points
 - Reflection essays: 2 essays, 10 points each
 - Workshops: 2 workshops, 5 points each
- Article Papers: 140 points
 - 4 article papers, 35 points each
 - First draft for peer feedback: 5 points
 - Peer feedback: 10 points
 - Final draft: 20 points

- Term Paper: 170 points
 - Mini papers: 25 points
 - 3 papers, 5 points each
 - 2 workshops, 5 points each
 - Topic: 5 points
 - Topic approved by Dr. Magaña.
 - Annotated bibliography: 40 points
 - 4 parts with 8 annotations each, 10 points each
 - Workshops: 15 points
 - 3 workshops, 5 points each
 - Outline: 5 points
 - Draft 1 for instructor feedback: 5 points
 - Draft 2 for peer feedback: 5 points
 - Peer feedback: 20 points
 - Final term paper: 50 points
- Honors Project: 100 points
 - Plan: 10 points
 - Draft: 10 points
 - Updates: 10 points
 - Two updates on your progress, 5 points each
 - Final project: 70 points
 - Project details will be developed to further your educational or career goals.
 - This project is for Honors credit. Students not enrolled for Honors credit are exempt from this project.

10. Schedule

Submit assignments on Canvas by **11:59 pm** on the due dates listed. Dr. Magaña may alter the schedule to better suit the class, due to inclement weather, etc., so check Canvas and your student email account regularly for updates.

<u>Date</u>	<u>Science Activities</u>	<u>Writing Activities</u>	<u>Writing Assignments Due</u>
M Jan 18			
W Jan 20	Behavioral Ecology Reading Scientific Articles	Course Intro Annotated Bibliographies Reflection workshop	
M Jan 25		Skills 1: Effective Feedback	
W Jan 27	Discussion 1: Communication		Mini Paper 1
M Feb 1		Skills 2: Useful Outlines Progress workshop: Mini Papers	Reflection
W Feb 3	Discussion 2: Scientific Investigation		Mini Paper 2, Team Sign-Up Survey
M Feb 8		Skills 3: Paraphrasing Progress workshop: Mini Papers	
W Feb 10	Discussion 3: Learning		Mini Paper 3
M Feb 15		Skills 4: Citation and Sourcing Topic workshop: Term Paper	Annot. Bibliography 1
W Feb 17	Discussion 4: Antipredator Behavior		Term Paper Topic, Article Paper 1 First Draft
M Feb 22		Skills 5: Effective Presentations	Article Paper 1 Peer Feedback Honors Project: Plan
W Feb 24	Discussion 5: Sexual Selection		Article Paper 1 Final Draft
M Mar 1	Team Presentations (1, 2)	Skills 6: Audience Progress workshop: Term Paper	Annot. Bibliography 2, Presentation Questions Honors Project: Update 1
W Mar 3	Discussion 6: Foraging		Term Paper Outline, Article Paper 2 First Draft
M Mar 8	Team Presentations (3, 4)	Skills 7: Transitions	Article Paper 2 Peer Feedback, Presentation Questions
W Mar 10	Discussion 7: Mating Strategies		Article Paper 2 Final Draft
M Mar 15	Team Presentations (5, 6)	Skills 8: Sentence Order Progress workshop: Term Paper	Annot. Bibliography 3, Presentation Questions Honors Project: Draft
W Mar 17	Discussion 8: Territoriality		Term Paper Draft for Instructor Feedback

Date	Science Activities	Writing Activities	Writing Assignments Due
M Mar 22	Team Presentations (7, 8)		Presentation Questions
W Mar 24	Discussion 9: Parents vs. Offspring		Article Paper 3 First Draft
Spring Break: No class			
M Apr 5			Annot. Bibliography 4, Article Paper 3 Peer Feedback Honors Project: Update 2
W Apr 7	Discussion 10: Indirect Selection		Article Paper 3 Final Draft
M Apr 12	Team Presentations (9, 10)		Term Paper Draft for Peer Feedback, Presentation Questions
W Apr 14	Discussion 11: Cryptic Mate Choice		Term Paper Peer Feedback (1)
M Apr 19			Term Paper Peer Feedback (2) Honors Project: Final
W Apr 21	Discussion 12: Invasive Species		Term Paper Final Draft
M Apr 26		Reflection workshop	
W Apr 28			Article Paper 4 First Draft
M May 3			Reflection, Article Paper 4 Peer Feedback
W May 5			Article Paper 4 Final Draft