

Time: Wednesday 2:00-2:50

Location: BioAg Dome?

Instructor: Dr. Matthew Cover

Graduate seminar (BIOL 5961) is usually organized in a “Journal Club” format, whereby we select, read, and discuss articles from peer-reviewed journals in the fields of ecology, environmental science and management, etc. During the spring semester, however, students have found it useful for us to engage in activities related to developing a thesis proposal.

Student Learning Objectives

This seminar class will build upon and reinforce your existing knowledge and skills. By the end of this course, you should have improved your ability and confidence to:

1. Perform a literature review on a topic, and write a concise, enlightening topic summary that accurately summarizes and critically analyzes information and research findings on your selected topic;
2. Develop research ideas and identify unanswered questions based on the synthesis of the literature on a topic;
3. Assess and provide feedback on the clarity and content of writing done by other students using a rubric.

Assessment

Attendance and participation	30%
Assignments (14 x 5%)	70%

Attendance and Participation

You are expected to attend and actively participate in every class session. One unexcused absence will be permitted before additional absences reduce your overall grade by 5% per absence. If you know you will miss class in advance, please let me know. You are expected to do your part to help create a collegial atmosphere conducive to scholarly discussion by encouraging your fellow students and being critical of the content of the discussion, not the speaker or their views.

Assignments

There is one assignment you are asked to complete each week. This will usually involve producing a product. Bring 3 copies of the assignment so we can do some peer review in class.

Expectations

A collegial atmosphere. It is very important that everyone in the class feel comfortable speaking up, disagreeing, and politely providing a critical eye towards each others’ work and ideas. It is best if we approach the seminar as a chance to help each other improve our understanding of new topics and our written communication skills.

Punctuality. Showing up to class on time is important, but just as important is completing and distributing your assignments on time. In this class we will be relying upon each other for critical reviews of each other’s work.

Schedule (subject to change)

January 28- The thesis and the thesis proposal. Brainstorming topics and using keyword searches.

Assignment: Perform three sets of keyword searches, save first 5 results for each; read titles and abstracts for all 15 papers; classify papers into similar groups

February 4- Identifying the known, unknown/problem, specific question/hypothesis, and overall approach

Assignment: Choose 5 recent papers; obtain pdfs; for each, identify and summarize (in 1 sentence each) the known, unknown, question, and approach.

February 11- Narrowing down a research topic; choosing an advisor

Assignment: Same as previous, but 5 more papers.

February 18- Performing a comprehensive literature review

Assignment: revisit and refine keyword searches, save top results, trace back historical refs. Put all refs, plus K/U/Q/A for 20 most relevant papers, in one doc.

February 25- Identifying what is known and unknown

Assignment: Add 10 more papers to annotated bibliography.

March 4- Developing your own K/U/Q

Assignment: Identify your own K/U/Q

March 11- The Introduction

Assignment: 3-4 part outline of introduction, including papers to cite

March 18- The Introduction, continued

Assignment: Expand outline into paragraphs

March 25- Hypotheses and Objectives

Assignment: Last paragraph of intro, including hypotheses

April 1 – Methods: Types of scientific studies and designs

Assignment: investigate feasibility of different approaches: locations, partners, supplies, time

Spring Break

April 15- Methods, continued

Assignment: Find 5+ most relevant method papers and carefully read methods sections. Summarize most relevant methods for your project.

April 22- Data analysis

Assignment: Investigate data analysis in 5+ relevant papers; summarize approach

April 29- Visualizing data

Assignment: Write methods and expected results sections. Bring in first draft of proposal.

May 6- Peer review; presenting your thesis proposal to your committee

Assignment: Second draft of proposal

May 13- Feedback and discussion of the process