



BISC 493

Biology Honors Seminar

Units: 1

Spring 2025, Wed, Time: 12-12:50PM

Section 13493D

Location: RRI (Ray R. Irani Hall), room 221

Instructor: John Tower, PhD

Office: RRI 219C

Office Hours: by appointment

Contact Info: Email (preferred method for contact)

jtower@usc.edu

Emails typically returned within 48hrs.

Phone 213-740-5384

Course Description

The goal of this seminar is for students to gain exposure to experimental biological research and to develop the ability to communicate scientific ideas effectively. Students in BISC493 are expected to attend at least one biology-related research seminar each week, choosing from the many available at USC each week, including the weekly seminar series listed below. Students are expected to take notes at the seminar, conduct additional background readings on the topic, and then present a summary of the research seminar as a “chalk talk” presentation to the class. Each student will make two presentations.

Marine & Environmental Biology	12 noon Tuesday	AHF Torrey Web Rm
Molecular and Computational Biology	12 noon Friday	RRI Auditorium
Neuroscience	12:30 PM Tuesday	HNB Auditorium
Gerontology	12 noon Thursday	GER 224
QCB	2-3 PM Thursday	RRI Auditorium

Biology seminars are listed at <https://dornsife.usc.edu/bisc> . Choose a section of the Biological Sciences department (e.g. Molecular and Computational Biology) and then choose Seminars and Symposia. Gerontology seminars are listed at <https://gero.usc.edu/colloquium/>. There are also numerous seminars in departments on the USC Health Sciences Campus. Neighboring institutions (UCLA, Caltech, City of Hope) offer a wide selection of research seminars. All BISC493 students should be able to find at least one interesting seminar to attend each week. It is also permissible to access seminars that have been recorded and archived electronically.

Learning Objectives

Students are expected to gain practical experience in understanding a research seminar, taking notes, conducting background literature research, and making an oral research presentation.

Prerequisite: BISC 120Lg or BISC 121Lg; BISC 220Lg or BISC 221Lg.

Course Notes

Course materials (syllabus and presentation schedule) will be available on Blackboard and/or Google Drive. Please check these sites frequently for course information and announcements.

Required Readings and Supplementary Materials

There are no specific required readings for this course. However, students are required to conduct background reading on the topic of the seminar they will present to the class. Any supplementary class materials will be posted on Blackboard and/or Google Drive.

Description and Assessment of Assignments

Class participation (15%): is based on asking questions and participating in discussion during presentations. Presentations (two at 40% each): will be graded on Introduction/literature review, Methods, Results, Discussion, Future Directions, overall clarity, and ability of the student to answer questions from the class. Final exam (5%): students are required to provide two written questions regarding the thesis presentations.

Grading Breakdown

<u>Assignment</u>	<u>Points</u>	<u>% of Grade</u>
Class participation	15	15
Presentation 1	40	40
Presentation 2	40	40
Final exam	5	5
Total	100	100

Grading Scale (Example)

Course final grades will be determined using the following scale

A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

Assignment Submission Policy

Students will sign up for two presentations at the first class meeting.

Grading Timeline

Grades for presentations will be available on Blackboard by the next class meeting.

Additional Policies

Attendance at each class is expected. Missed classes will result in loss of class participation points for that class meeting. It may be necessary to make changes to the syllabus during the semester.

Course Schedule: A Weekly Breakdown

	Topics/Daily Activities	Readings and Homework	Deliverable/ Due Dates
Week 1 Jan 15	Sign-up for presentation dates	None	None
Week 2 Jan 22	Student presentations	None	None
Week 3 Jan 29	Student Presentations	None	None
Week 4 Feb 5	Student presentations	None	None
Week 5 Feb 12	Student presentations	None	None
Week 6 Feb 19	Student presentations	None	None
Week 7 Feb 26	Student presentations	None	None
Week 8 Mar 5	Student presentations	None	None
Week 9 Mar 12	Student presentations	None	None
Week 10 Mar 19	*Spring Break*	None	None

Week 11 Mar 26	Student presentations	None	None
Week 12 April 2	Student presentations	None	None
Week 13 April 9	Student presentations	None	None
Week 14 April 16	Student presentations	None	None
Week 15 April 23	Student presentations	None	None
Friday May 9, 11-1 PM	Final Exam	Honors Thesis students will present. Honor Seminar Students are required to provide two written questions, about two different presentations by the Honors Thesis students.	Friday May 9, 11-1 PM

Helpful Hints for Oral Presentations in BISC 493

1. Take good notes at the seminar, and as necessary, supplement your information from the speakers website(s) and their published papers. A recent review article by the speaker is often useful.
2. Organize your notes and plan ahead how you will present the information on the board. Draw out ahead of time a diagram of how and where you will place all your information on the rectangular space of the board.
3. Plan on giving a “chalk talk” (actually dry-erase markers) presentation lasting ~20 minutes, so there will be plenty of time for questions. Start by introducing yourself and giving the name of the speaker and the title of their talk.

4. **Keep your mind on the big picture!** Remember to give an overview at the beginning. Give a brief introduction to the topic, including why the question/hypothesis being investigated is interesting and important. This will help to pique the interest of your listeners at the start.
5. **Aim for a crisp, well-organized, and succinct presentation.** You cannot possibly cover all the material that was given in a 1-hr seminar or in a research paper, so you have to decide what sub-section is most critical and interesting, and focus on that.
6. **Include the following sections in your presentation:** Introduction/background/hypothesis. Methods. Results. Conclusions. Any criticisms. Future directions for the research.
7. **Take your time and write clearly and in large letters on the board.** Try not to talk into the board – write your material and then turn around and talk to the audience.
8. **Frequently, speakers forget that people in the audience don't know much about the topic.** Unless you are presenting a talk at a specialized scientific conference, you should remember that you're explaining complicated material to people who don't already know much about it. Put yourself in the listeners' place and try to anticipate what will confuse them.
9. **Ideally you should be so familiar with your notes that you only have to glance at them to remind yourself where you are and what to say (or write) next, then as you speak, make eye contact and engage with the audience.**
10. **Remember to take a giant step BACK at the end of your presentation and return to the big picture.** Ask yourself: what is the main take-home message I want to convey?
11. **It's a performance!** Even if you don't feel particularly energetic and confident, you have to **ACT AS IF YOU ARE**, just for 30 minutes.
12. **Try not to say "um" or "like" or "basically" multiple times during your talk – this can be challenging to get used to!** If you fall into the habit of repeating such words, it can be a difficult habit to break. It is distracting to the audience to hear multiple repetitions of a single word, especially one that has little or no informational content.

Talks will be graded based on:

1. **Organization, content and clarity of the presentation, including supplementing with information from websites and/or publications.**
2. **Introduction/background/hypothesis. Methods. Results. Conclusions. Any criticisms. Future directions for the research.**
3. **Organization and clarity of material written on the board.**
4. **Engagement of the speaker with the audience and clarity of responses to questions.**

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Student Health Counseling Services - (213) 740-7711 – 24/7 on call
engemannshc.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 – 24/7 on call
engemannshc.usc.edu/rsvp

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) | Title IX - (213) 740-5086
equity.usc.edu, titleix.usc.edu

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

Bias Assessment Response and Support - (213) 740-2421
studentaffairs.usc.edu/bias-assessment-response-support

Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

The Office of Disability Services and Programs - (213) 740-0776
dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710
studentaffairs.usc.edu/ssa

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101
diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call
dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call
dps.usc.edu

Non-emergency assistance or information.