

Biology 565 – Research and Communication Skills in Biology – 10405

Fall 2023

Instructors:

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When and where:

Thursdays, 2:30-4:20 pm

Clearihue Building D130

Course description:

This course will focus on presentation and writing skills, including grant/project proposals. Other topics will also include navigating the world of scientific publication, ethics, resilience and time management.

Course delivery:

We intend to meet in person, and course materials will be distributed via Brightspace. However, should we need to pivot to online delivery, we will meet via zoom, with links to virtual meetings being provided as needed. Please check that you have access to the Brightspace site for the course. There we will post all course materials including lecture PDFs, assignment guidelines, etc. Please ensure that you are signed up for Brightspace using the correct email address.

Assignments, Grade Distribution and Important Dates:

Writing assignments:

1. Written summaries of seminars: Students will submit a total of 4 summaries of seminars they have attended over the term. You are free to choose which seminars you write about, but we encourage you to choose at least two departmental (i.e. Biology) seminars. Forest biology seminars count as department seminars. The other two can be from other departments (e.g. Environmental Studies, SEOS, Geography, etc) or from other universities. At least two of the summaries must be on seminars that are from fields outside your area of research interest and expertise. You must complete at least 1 summary per month over the course of the term.

Summaries must be submitted within three days of the seminar date (this is so that the seminar is fresh in your mind). Each summary is min 1 page/max 2 page single-spaced. The goal of this exercise is to: introduce you to the depth and breadth of research topics

in biology, to get you into the habit of attending seminars, and to also to learn about effective presentation skills. The majority of your report should be a summary of the seminar, but devote at least 1 paragraph to comment on presentation style (what worked, what didn't).

Email your seminar summaries to rana@uvic.ca

2. Research proposal: Students will write a 5-page research proposal. The structure of the proposal will be inspired by the “free-form” proposal component of the NSERC Discovery grant that faculty submit to obtain research funding. More information will be made available in the first two lectures. The first draft of this proposal will be due by 2:30 pm on Oct 27th. You will receive feedback from the instructors and your peers in a “mock” review panel, and then a final draft will be due on the last day of class.

3. Presentations: You will give three presentations this term:

Presentation #1: In the first third of the term, you will give a presentation to introduce the general area of your research and talk about the studies that have inspired you to pursue it. The presentation will therefore focus on relevant findings from two papers of your choice: a) a seminal, or foundational, paper in your field that sets stage for your research, and b) a recent high-profile paper in your field which is relevant to your work. Avoid review papers, and instead focus on a case study. Do not pick a paper that either you or your supervisor were co-authors on. More details will be made available in the first lecture.

Presentation #2 (group presentation): In the second third of the term, 2-3 of you will collaborate to give a presentation summarizing a recent high-profile controversial case in Biology involving retraction of a paper, or some other ethical controversy. Focus on cases where papers have been retracted or where there has been an incident of academic misconduct. Retraction watch is a good place to start (<https://retractionwatch.com/>). Avoid papers where you have a conflict of interest, or that involve collaborators, current or former supervisors or members of your lab. Also avoid papers in which the ethical controversy is a difference of opinion. Here our focus is on academic integrity, including plagiarism, data manufacturing, authorship questions, major conflict of interest, etc.

Presentation #3: In the final third of the term, you will give a short (either “three minute thesis” or “lightning” talk) presentation. More details to follow.

Grade distribution:

Departmental seminar summaries (4X 5%)	20% (1 per month)
Draft Research proposal feedback duties)	20% (5% for 1 st reader and 2 nd reader)

Final Research proposal	25%
Presentation #1	10%
Presentation #2	15%
Presentation #3	10%

Tentative schedule:

- Sept. 7th **Organizational meeting:** introduction, and expectations
- Instructions for first presentation
- Deciding on order of presentations
- Sept. 14 **writing and time management** and discussion of proposal requirements
- Sept. 21st Presentation 1 (3 students)
- Sept 28th Presentation 1 (4 students)
- Oct 5th Presentation 1 (2 students) + wrap up
- Oct 12th Presentation wrap up, academic integrity, and proposal check in.
- Oct 19th Presentation 2
- Oct 26th Presentation 2
- Oct 27th PROPOSAL DRAFT DUE**
- Nov 2nd **Mental Health Resources for Graduate Students** by Dawn Schell from
Counselling Services
- Nov 9th **Proposal panel**
- Nov 16th Presentation 3 OR Proposal panel part 2
- Nov. 23rd Presentation 3
- Nov 30th Final lecture

Academic regulation:

1. **VERY IMPORTANT:** UVic's policy on academic integrity (<https://tinyurl.com/3p4hufrw>)
2. Penalty for late submission of written assignments: 5% per day.
3. Know your responsibilities as outlined in the calendar (<https://www.uvic.ca/calendar/grad/#/home>) and the UVic graduate supervision policy (<https://www.uvic.ca/students/assets/docs/graduate-supervision-policy.pdf>)
4. The Center for Accessible Learning is here to help (<https://www.uvic.ca/services/cal/>)
5. Please read UVic's policy on copyright (<https://www.uvic.ca/library/featured/copyright/>)
6. Important UVic dates including dates for adding and dropping course, holidays, etc. (<https://www.uvic.ca/calendar/dates/>)
7. Please read this information on plagiarism (<https://www.uvic.ca/library/research/citation/plagiarism/index.php>)

Core principles:

1. We will keep ourselves and each other safe by following public health orders (<https://tinyurl.com/2p9darf7>). If you are sick please follow current guidelines (<https://tinyurl.com/2p8ehd6j>), and please get in touch with the instructors as soon as possible. We will do our best to accommodate you.
2. We are committed to equity, diversity and inclusion. Our goal is to create an inclusive environment where all are welcome. All students are required to be respectful of their colleagues, and to be mindful of bias, especially when providing feedback and constructive criticism. If you are registered with the Center for Accessible Learning (CAL, <https://www.uvic.ca/services/cal/>), or have any concerns about barriers to success, please discuss them with the instructors as soon as you can.
3. Team work is a very important part of science, and is integral to success. It is also a highly rewarding experience. We will work together and learn how to navigate successful collaborations.
4. We will maintain a high standard of academic integrity. Please review the UVic Calendar (<https://tinyurl.com/3p4hufrw>) to refresh yourselves on the UVic guidelines for integrity, etc.
5. We will share information about opportunities for professional development with you, and we ask that you share them with each other. This course is highly focused, and it is not intended to capture all of the professional development opportunities that are available for graduate students at UVic. We will use the Brightspace page to let you know about opportunities as they come up, and we ask that you do the same.