

Graduate Research Workshop
Geol 7005, Fall 2019
Geology Museum (Room 308 Geophysics Building)
Wednesdays 10:10 am to 12:10 pm

Instructor: Brooke Crowley

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Office Hours: M 2:30-3:30 and W 12:15-1:15 pm in Braunstein Room 472 or by appointment

Course Description: In this course, new graduate students will learn about the department and the University, and will work on establishing their thesis research projects. Weekly meetings will be devoted to topics including how to start a research project, effectively reading the literature, building networks, obtaining funding, writing funding proposals, and speaking about one's research in both scientific and laymen's terms. Some time will also be devoted to teaching tips, including managing groups of students, leading effective discussions, and grading strategies. Students will be expected to write one funding proposal during the semester and will gain practice providing and receiving feedback on their proposal drafts towards the end of the term.

Expectations:

- Attend all classes; arrive on time and stay for the duration of class.
- Respect me and your fellow students.
- Complete all assignments on time.
- Actively participate in course discussions and activities.
- Ask for help if you need it.
- Proficiency in Microsoft Word, Excel, and PowerPoint.

Attendance: Class will meet once a week. If you need to miss class, you must notify me in advance. Depending on the reason of your absence, the attendance may or may not be excused.

Academic Integrity: Academic misconduct will be dealt with in accordance with University Judicial Affairs (http://www.uc.edu/conduct/Academic_Integrity.html).

Special Needs: If you have any special needs related to your participation in this course, including visual impairment, hearing impairment, physical impairment, communication disorder, and/or specific learning disability that may influence your performance in this course, you should meet with me AS SOON AS POSSIBLE to arrange for reasonable provisions to ensure an equitable opportunity to meet all the requirements of this course. Some accommodations may require approval by Disability Services Office (513-556-6823, 210 University Pavilion).

Grading Breakdown:

55%	Attendance and participation (In class activities, discussions, reflections, etc.) Students are expected to be <i>actively present</i> . Showing up to class is only part of this. Coming prepared and engaging in material is equally important.
15%	Learning journal reflections (worth 3% each)
15%	Complete draft of research proposal (November 13 th)
5%	Peer review/ feedback on another student's revised research proposal
10%	Mini scientific presentation about your research

WEEKLY SCHEDULE

Week 1 (August 28) – Welcome and organization [**Brooke and Krista Smilek**]

Assignments:

(1) *Confirm you can access the UC OneDrive folder that I made for you. Set up your Learning Journal and complete Entry #1 by 10 pm on Friday, August 30th.*

Instructions and the prompt for your first entry are provided on Blackboard.

(2) *Complete the pre-semester survey by 10 pm on Friday August 30th:*

<https://docs.google.com/forms/d/e/1FAIpQLSfeQJgTAdoegO7gC3xhGgAkUCEc9MN-8wuGm3ju2P3cl-0Yww/viewform>

Week 2 (September 4) – Expanding your mentor network [**Margaret Hanson, Associate Dean for Natural Sciences**]

Assignment: Complete Learning Journal Entry #2 by 10 pm on Sunday, September 15th.

Week 3 (September 11) – Getting off to a productive start, how to start a research project, and responsible research practices [**Brooke**]

Assignments: Read the material posted under Week 3 on BB before class

Week 4 (September 18) – Productively searching the literature [**Aaron Diefendorf**]

Helpful library link for student research: <https://guides.libraries.uc.edu/gradstudents>

Link for properly citing sources: guides.libraries.uc.edu/c.php?g=222190&p=1470863

Week 5 (September 25) – Time management, work-life balance, and finances (i.e. staying on track and staying sane) [**Brooke and Student Wellness Center**]

Assignment: Complete Learning Journal Entry #3 by 10 pm on Friday, September 27th.

Week 6 (October 2) – Writing a funding proposal [**Dan Sturmer**]

Assignment: Read the material posted under Week 6 on BB before class.

Week 7 (October 9) – Data Visualization (a.k.a. making and beautifying figures) [**Brooke**]

Assignment: Bring an example of a great figure, a terrible figure, and a figure idea (or draft of a figure) relevant to your own work with you to work on in class.

Note: I will focus on the capabilities of Powerpoint. We have taught students to use Adobe Illustrator in the past. However, annual licenses have become increasingly expensive, and the capabilities of PowerPoint have increased substantially. I'll walk you through some tips and tricks and then you will have time to work on a figure for your own work. There are some things that cannot be done in Powerpoint, such as sizing an image. The library has computers that have the Adobe Creative Suite and ArcGIS that are available to students during normal business hours. They also have student workers who are available to help you with your needs (<https://guides.libraries.uc.edu/gmp-research-labs/home>).

Week 8 (October 16) – Making a topographic base map with QGIS [**Dylan Ward**]

Assignment: Consider downloading QGIS (free) on your own computer. It will greatly facilitate your ability to follow Dr. Ward's presentation.

Week 9 (October 23) – Teaching tips [**Brooke**]. **Andrea Corpolongo-Smith** will also be speaking with us briefly about the Preparing Future Faculty Program.

Assignments:

- (1) Read the material posted under Week 9 before class.
- (2) Come with questions and concerns you have about organizing a lecture, leading discussions, grading assignments, managing grades, etc.

Week 10 (October 30) – Developing an elevator pitch + scientifically speaking about your research [**Brooke**]

Assignment: What do you say when people ask “what do you do”? It’s really important to be able to answer this question succinctly. Try speaking to yourself, your cat, your dog, or a mirror about your work. Write down your best attempts and bring them with you to class. We’ll review these and then work on them further in class.

Week 11 (November 6) – Giving and receiving feedback [**Brooke and Alicia Booker from the Ombuds Office**]

Assignments:

- (1) Read the introductory chapter to “Thanks for the Feedback” (posted under Week 11 on BB). Additional chapters from this book are also posted but are optional reading.
- (2) Complete Learning Journal Entry #4 before class (10:10 am on Wed, Nov. 6th).

Week 12 (November 13) – Work on mini presentations (details provided later in the semester)

Assignments: Complete first draft of research proposal due.

Week 13 (November 20) – Mini presentations Round 1

Week 14 (November 27) – Peer review of research proposals

Assignment: You are responsible for reviewing a partner’s revised proposal (that incorporates my comments) and going over your comments with him or her in person before class on December 4th (Your peer review is due to both me and your peer on the 4th). I recommend doing this during class on Nov. 27 but understand this might not jive with everyone’s schedules.

Week 15 (December 4) – Mini presentations Round 2

Week 16 (Finals Week) – AGU. No Class

Assignments:

- (1) Complete Learning Journal Entry #5 by 10 pm on Wednesday, December 11th.
- (2) Complete the post-semester survey:

<https://docs.google.com/forms/d/e/1FAIpQLSfeQJgTAdoegO7gC3xhGgAkUCEc9MN-8wuGm3ju2P3cl-0Yww/viewform>