

Principles of Graduate Training

Time: Wednesday Period 4-5 (10:40-12:35)

Location: Carr 222

Instructor

Charles Baer

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Teaching Assistant

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Course Description

General introduction to the process of becoming a professional scientist during the PhD program. Management of graduate program including technical aspects, professional activities such as networking, reviewing papers, submitting manuscripts, and research presentation. Introduction to UF research resources. Discussions, paper writing, project design, performance of analyses.

Course Objectives

At the conclusion of this course, students are expected to be able to:

- Participate in scientific discussions.
- Synthesize scientific knowledge into a literature review paper.
- Review scientific papers
- Discuss major issues facing early-career scientists and ethical issues in research
- Interact effectively and professionally with scientists from diverse backgrounds and interests.

Required Textbooks

There is no required text in this course. Readings will be assigned from books and journal articles; these will be made available from our web page during the semester.

Course Schedule

This is a tentative schedule; the dates and coverage of specific topics are subject to change.

Week 1 (Aug 24): Introduction to course; what is a good scientist?

Week 2 (Aug 31): Graduate school timeline; What makes a good paper?

Week 3 (Sep 7): Forming a Committee / Qualifying Exam

- **Talk to your advisor about potential paper topics**

Week 4 (Sep 14): Awards & Funding

- **Topic of Your Paper Due in class**

Week 5 (Sep 21): Collaboration and Authorship

Week 6 (Sep 28): Scientific ethics

Week 7 (Oct 5): Peer Review

Abstract of your Paper due in class

Week 8 (Oct 12): Social Media – (TBD)

Week 9 (Oct 19): Reproducibility

Week 10 (Oct 26): Open data, open code

- **Trip to Whitney Lab this weekend! (Nov 5-6)**

Week 11 (Nov 2): **Implicit** bias and implicit biases in AI – (Juannan Zhuo)

Week 12 (Nov 9): Diversity in science

- **Paper due in class**

Week 13 (Nov 16): Time management / work-life balance

Week 14 (Nov 30): Career Day!

- **Reviews of Papers due in class**

Week 15: (Dec 7) Conclusion, ICBR Workshop.

- **Final Version of Papers Due at midnight on December 7th**

Course Assignments and Contributions to Your Grade

Your grade will be based on a total of 100 assigned points of credit as follows:

Term Paper: This will be a paper written as a review of a topic related to your research topic. You will be graded on the first draft of your paper (10 points) and the final revisions of your paper (10 points). You will also be graded on the peer review you provide to other student's first draft (10 points).

Participation (30 points): Consistent informed, thoughtful, and considerate class participation is expected and will be evaluated using the rubric below. The instructor will inform you of your participation grade to date when mid-term exams are returned and schedule a conference if you are earning below 70% of the possible points.

***NOTE:** If you have personal issues that prohibit you from joining freely in class discussion, e.g., a language barrier, a speech or hearing impediment, etc., see the instructor as soon as possible to discuss*

Participation Grading Rubric:

| | <i>High Quality</i> | <i>Average</i> | <i>Needs Improvement</i> |
|---|---|--|--|
| Informed: Shows evidence of having read the readings and/or done the assigned work. | Has grasped all the essential material needed for discussions and participation | Has grasped the basic material but shows some important lapses or superficial attention to materials | Shows little to no evidence of having read appropriate materials |
| Thoughtful: Shows evidence of having understood and considered issues raised. | Has given thought and anticipated how to contribute to the discussions and activities | Is thoughtful of responses to questions and discussions | Shows little interest in the issues raised |
| Considerate: Takes the perspective others into account. | Engages actively, creatively and respectfully in participating in the class | Is tolerant of the perspectives of others but doesn't show much interest or engagement in other points of view | Is disrespectful of the views of others |

Classroom exercises, out of class research and group projects, and presentations (40 points). The particulars of these assignments will be described in class and depend on logistical constraints including which facilities we visit and input from the class.

Grading & Grade scale

For information on how UF assigns grade points, visit:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

| | | | | |
|----|------------------------------|--|----|----------|
| A | 94 – 100% of possible points | | C | 74 – 76% |
| A- | 90 – 93% | | C- | 70 – 73% |
| B+ | 87 – 89% | | D+ | 67 – 69% |
| B | 84 – 86% | | D | 64 – 66% |
| B- | 80 – 83% | | D- | 60 – 63% |
| C+ | 77 – 79% | | E | <60 |

Course Policies

Readings should be done in advance of class; you are expected to come ready to discuss the topics. Excuses will be considered only in cases of medical and/or family emergencies (see text about COVID-19 below), as documented by an accompanying letter, or for official academic activities (in which case I should be contacted in advance via email).

Attendance and make-ups

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Refer to the above link for more information on the university's attendance policy.

COVID-19 Precautions

- We will follow the most recent UF Covid guidelines, which are published at: <https://coronavirus.uflhealth.org/>.

Students Requiring Accommodations

Students who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/.

Class Demeanor

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones. Opinions held by other students should be respected in discussion.

Materials and Supplies Fees

There are no additional fees for this course.

Academic Integrity

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honorcode/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Resources Available to Students

Health and Wellness

- *U Matter, We Care:* umatter@ufl.edu; 392-1575
- *Counseling and Wellness Center:*

- <http://www.counseling.ufl.edu/cwc/Default.aspx>; 392-1575 •
Sexual Assault Recovery Services (SARS): Student Health Care
Center; 392-1161
- *University Police Department*: <http://www.police.ufl.edu/>; 392-1111 (911 for emergencies)

Academic Resources

- *E-learning technical support*: Learningsupport@ufl.edu;
<https://lss.at.ufl.edu/help.shtml>; 352-392-4357 (opt. 2)
- *Career Resource Center*: Reitz Union; <http://www.crc.ufl.edu/>;
392-1601
- *Library Support*: <http://cms.uflib.ufl.edu/ask>
- *Teaching Center*: Broward Hall; 392-2010 or 392-6420 •
Writing Studio: 302 Tigert Hall; [http://writing.ufl.edu/writing
studio/](http://writing.ufl.edu/writingstudio/); 846-1138

Procedure for Conflict Resolution

Any classroom issues, disagreements or grade disputes should be discussed first between the instructor and the student. If the problem cannot be resolved, please contact the Department Chair. Be prepared to provide documentation of the problem, as well as all graded materials for the semester. Issues that cannot be resolved departmentally will be referred to the University Ombuds Office (<http://www.ombuds.ufl.edu>; 392-1308) or the Dean of Students Office (<http://www.dso.ufl.edu>; 392-1261). For further information refer to https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf (for residential classes) or <http://www.distance.ufl.edu/student-complaintprocess> (for online classes).