

## **Current Topics in the Biosciences, X427, 2 units**

Rm 704, UCB Extension San Francisco Campus

M 6:30-9:30, Jan 28 – April 8, 2019

**Instructor:** Robin Ball

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Feel free to email me if you have questions and I will try to answer as soon as possible. I can also meet during the day in Berkeley or before class (at 6pm) if you let me know ahead of time.

**Course Description:** In this course, we will focus on a number of current exciting topics in the fields of molecular biology, health sciences, neurobiology, genetics, and cell biology. We will spend the first part of the course discussing recent journal articles and learning how to give effective scientific presentations. In the second part of the course, students will take over the presentations of journal articles to the class, and we will continue our discussions of interesting new research.

The main purpose of this course is to become comfortable reading journal articles in any field of biology. Even if you are not an expert in the topic, you can still understand the main points of most articles. The second objective of this course is to learn how to give an effective scientific presentation, including how to prepare the slides, how to organize the presentation and how to reach your audience.

**Prerequisites:** This course is intended for advanced students who have taken upper division courses in cell biology, molecular biology and/or genetics.

**Required reading:** Every week, there will be several journal articles assigned for reading. These articles will be available on our website: <https://onlinelearning.berkeley.edu/courses/920419>. Articles and slides will be posted in the Files section, in folders for each class session.

Please also make sure that you have access to software for making computer-based presentations, ideally Powerpoint. You may also use online-based presentation software. Let me know if this is a problem for you.

**Attendance:** Please come to class regularly and be on time! Attendance is mandatory since this is a discussion-based course.

**Missed quizzes or presentations:** There will be NO make-up quizzes, and they will be given at the beginning of class so be on time! If you know you have to miss a class for legitimate reasons, let me know, so we don't schedule your presentation for that day. Once you have been assigned a presentation day, you will not be granted a make-up day for missed presentations.

**Cell phones:** Turn them off during class please (fine to use during breaks).

### **Grading:**

Attendance and participation: 30%

Quizzes: 30%

Presentation: 40%

A > 90%, B 80-90%, C 70-80%, D 60-70%, F < 60%, P > 70%, NP < 70%

**Participation:** Besides coming to class regularly, you must be prepared for each class, having read all the assigned journal articles. You must demonstrate that you have read all of the papers at the start of class, by either preparing a list of comments and questions, or making notes on the papers. This way, during class discussions and student presentations, you will be able to actively participate. Your questions or notes will be checked at the start of each class. In addition, there may be small assignments that go towards your presentation grade.

**Quizzes:** There will be four quizzes throughout the course. Each quiz will cover two class sessions. You will usually be given a figure related to each subject and you will choose one figure to explain and discuss. There will be an extra credit quiz during the last class (worth half of a regular quiz).

**Presentations:** Each student will give one individual presentation on an assigned journal article. We will go over how to prepare an effective Powerpoint presentation. You will be graded on the presentation file itself, but also on how you present it to the class.

### **Grading Options:**

- CLG—credit letter grade (DEFAULT STUDENT GRADING OPTION)
- P/NP—pass/not pass
- NC—not for credit
- W—withdrawal (must be student-initiated)

### **Petition for Grade Option Change:**

Form: [http://extension.berkeley.edu/upload/grade\\_option\\_change.pdf](http://extension.berkeley.edu/upload/grade_option_change.pdf)

If you opt to change your grade option, you must inform your instructor as follows. The default for all students is to receive a letter grade. If you opt to change your grade option to a pass/no pass basis (P/NP) or a noncredit basis (NC), you must complete and submit the form above to your instructor before the last class meeting. Extension will not accept any late grade option change form and cannot change a P/NP grade or NC grade option to a letter grade after recording it.

- **Passed and Not Passed (P/NP):** Passed/Not Passed can only be assigned to students who complete the requirements for credit. The student must have earned at least a "C-" to receive a Passed (P) grade.
- **Not for Credit (NC):** Not for Credit is assigned to students whose attendance is satisfactory and may not be assigned to students who stop attending class.

### **Petition to Withdraw**

You can submit a request to withdraw by logging into your student account and submitting the request on your enrollment history page before the last course meeting.

Withdrawal after the drop deadlines are non-refundable at the time, and a "W" will appear on your student record.

### **Petition for Incomplete**

Form: [https://extension.berkeley.edu/upload/petition\\_for\\_incomplete.pdf](https://extension.berkeley.edu/upload/petition_for_incomplete.pdf)

Incomplete grades may be assigned by an instructor on an exceptional basis if your coursework has been of passing quality but not finished during the term or enrollment period due to circumstances beyond your control. The following criteria must be met:

- You have successfully completed 75 percent of the assignments, assessments or projects at least three weeks prior to the course end date.
- You and the instructor have made a written agreement on the work required to complete the course and the due date by which you will submit the work to the instructor. The due date must be within three months of the course end date. If you do not complete the agreed-upon work, your instructor can submit a failing grade for you.
- You must sign and present the [Petition for "Incomplete" Grade form](#) (referenced above) to the instructor prior to the course end date.

However, even if these criteria are met, it is at the discretion of the instructor whether to grant the Incomplete.

**Other Grade Policies:**

<http://extension.berkeley.edu/info/grades.html>

**General Berkeley Extension Policies**

**Classroom Visitors:** Auditing is not permitted in UC Berkeley Extension courses. You must formally enroll in the course and pay all fees before the second classroom meeting.

**Student Disability Services:** All students who have special needs can receive appropriate accommodations. The EXDSS office must determine or verify these accommodations before they can be offered. Students who are requesting academic accommodations are responsible for contacting the EXDSS Coordinator before your course begins or immediately upon the start of the course. Students may submit their request by email: [extension-dss@berkeley.edu](mailto:extension-dss@berkeley.edu) or phone: (510) 643-5732.

**Important Deadlines:**

Drop Course: You may drop the course up to the second class meeting.

Withdraw or Grade Option Change: Must be submitted before the last class meeting.

You can add, drop or withdraw by logging into your student portal.

**Academic Integrity and Student Conduct:** Academic misconduct is any action or attempted action that may result in creating an unfair academic advantage for you or any other members of the academic community. This misconduct includes a wide variety of behaviors such as cheating, plagiarism, altering academic documents or transcripts, gaining access to materials before they are intended to be available, and helping another student to gain an unfair academic advantage.

As a student of UC Berkeley Extension, you are encouraged to reach out to your fellow students in your class to avoid isolation, to discuss materials, and to ask each other questions, but there are limits to this collaboration. Please review the following document on academic integrity ([http://extension.berkeley.edu/upload/academic\\_integrity.pdf](http://extension.berkeley.edu/upload/academic_integrity.pdf)), which clearly defines what constitutes cheating, as well as plagiarism and other forms of academic misconduct. Students are also responsible for informing themselves about UC Berkeley Extension’s Code of Student Conduct and its grounds for discipline (<http://extension.berkeley.edu/info/policies.html#conduct>).

UC Berkeley Extension takes academic misconduct very seriously. Depending upon the nature of the incident, the academic disciplinary sanction may vary but can result in consequences such as a failing grade for the course or even suspension and dismissal.

**Reasonable Accommodation for Students' Religious Beliefs, Observations and Practices:**

In compliance with Education code, Section 92640(a), it is the official policy of the University of California at Berkeley to permit any student to undergo a test or examination, without penalty, at a time when that activity would not violate the student's religious creed, unless administering the examination at an alternative time would impose an undue hardship which could not reasonably have been avoided. Please contact the Extension program office for more information.

**Other Extension Policies:**

Including Privacy, Nondiscrimination, Sexual Harassment, Safety and Security, Classroom Recording: <http://extension.berkeley.edu/info/policies.html>

**Building Security:** 415-341-8457

**Schedule**

Date	Subject	Quiz	Presentations
Jan 28	Introduction to class and topics 1. Fluorescent imaging		
Feb 4	2. Optogenetics		Powerpoint hints Submit top 3 choices
Feb 11	3. CRISPR/Cas9 genome editing	Quiz 1 (covers class 1+2)	Prepare rubric in class
<i>Feb 18</i>	<i>No class (President's Day)</i>		
Feb 25	4. Epigenetics		Example presentation Practice figures
Mar 4	5. Aging	Quiz 2 (covers class 3+4)	Student presentations
Mar 11	6. Regeneration		Student presentations
Mar 18	7. Antimicrobials	Quiz 3 (covers class 5+6)	Student presentations
Mar 25	8. Microbiome		Student presentations
Apr 1	9. Immunotherapy	Quiz 4 (covers class 7+8)	Student presentations
Apr 8	10. Cancer resistance	Extra credit (covers class 9+10)	Student presentations