



## **Class Time and Location**

Lecture: Tuesdays and Thursdays, 12:30-1:45 PM  
Botany 325

Discussion: Wednesdays, 1-1:50 PM  
La Kretz 120

## **Seminars**

Both seminars will be videotaped and posted on the BruinCast website ([www.bruinCast.ucla.edu](http://www.bruinCast.ucla.edu)). You will only be able to access the seminars on BruinCast – other class dates will not be recorded.

## **Assignment and Grading**

Class participation is important! Your grade will depend in part on how much you speak up or ask questions in class. Remember, there is no such thing as a foolish question. If you don't understand something, it is more foolish not to ask a question! And sometimes questions you may think are naive end up being the most provocative. So speak up! Of course, you are also welcome to come to office hours or email me if you have any questions; this also counts toward class participation.

There will be four problem sets of 4-6 questions based on material covered in class. They will be used to monitor your understanding and to encourage you to think creatively about the science.

Your midterm assignment will consist of a short paper of about 3 pages (single-spaced), in which you will summarize the problem(s) studied by the seminar speaker, the experiments and their results, and the conclusions and significance of the work. You will also suggest one or two future directions that you might want to investigate if you were doing the research.

Beginning with week 7, we will do "What's New?" student presentations. These presentations will be 10-minute summaries of a paper on any topic in biology that was published in a major scientific journal within the previous two months. You will quickly highlight the major questions, one or two key experimental results, the conclusions of the paper and why it is important. The purpose of this exercise is to get you used to reading the current scientific literature. You will choose the paper, but please clear it with me in advance, so we don't end up with two people doing the same one. You may consult with me in advance of your presentation if you have questions.

The final assignment will be a 3-5 page paper (single-spaced), the topic of which will be revealed later in the course. It is due Friday, Dec. 12.

**Your final grade will be calculated as follows:**

Class participation –	200
Problem sets –	200
Midterm paper –	250
Presentation -	100
Final paper –	250
Total –	1000 points

(tentative schedule)

**Week 0**

Thursday, Sept. 25                      Introduction. Course structure and basic concepts.

**Week 1**

Tuesday, Sept. 30                      **Seminar 1. Dr. Rachelle Crosbie – Mechanisms and therapeutic strategies for muscular dystrophies.**

Wednesday, Oct. 1                      No Discussion section scheduled.

Thursday, Oct. 2                        Structure, function and development of muscle.

**Week 2**

Tuesday, Oct. 7                        The DGC and the ECM.

Wednesday, Oct. 8                      Discussion

Thursday, Oct. 9                        Identifying sarcospan as a component of the DGC.

**Week 3**

Tuesday, Oct. 14                        Biochemical characterization of sarcospan.  
**Problem Set 1 due.**

Wednesday, Oct. 15                      Discussion

Thursday, Oct. 16                        Too much of a good thing. Defects from excess sarcospan.

**Week 4**

Tuesday, Oct. 21                        Can a little extra sarcospan help you cope without dystrophin?  
**Problem Set 2 due.**

Wednesday, Oct. 22                      Discussion

Thursday, Oct. 23                        Finding small molecule drugs to increase the UGC.

**Week 5**

Tuesday, Oct. 28                        **Recap of Seminar 1. Q&A with Dr. Crosbie.**

Wednesday, Oct. 29	Discussion
Thursday, Oct. 30	<b>Midterm paper due.</b> <b>Seminar 2. Dr. Margot Quinlan. Specialized proteins for formin' the actin cytoskeleton.</b>
<b><u>Week 6</u></b>	
Tuesday, Nov. 4	Why should we study the cytoskeleton?
Wednesday, Nov. 5	Discussion
Thursday, Nov. 6	How actin filaments get started. Spir as a nucleator.
<b><u>Week 7</u></b>	
Tuesday, Nov. 11	Veterans Day.
Wednesday, Nov. 12	Discussion. "What's New?" presentations.
Thursday, Nov. 13	How does Spir nucleate actin? <b>Note - Assigned reading!</b>
<b><u>Week 8</u></b>	
Tuesday, Nov. 18	Does Spir bind to Capu? How can we tell if two proteins bind each other? <b>Problem Set 3 due.</b>
Wednesday, Nov. 19	Discussion. "What's New?" presentations. Groups 1 and 2.
Thursday, Nov. 20	Do Spir and Capu regulate each other?
<b><u>Week 9</u></b>	
Tuesday, Nov. 25	Oocyte polarity, cytoplasmic streaming and Spir function <i>in vivo</i> . <b>Problem Set 4 due.</b>
Wednesday, Nov. 26	Discussion.
Thursday, Nov. 27	Happy Thanksgiving!
<b><u>Week 10</u></b>	
Tuesday, Dec. 2	<b>Recap of Seminar 2. Q&amp;A with Dr. Quinlan.</b>
Wednesday, Dec. 3	Discussion. "What's New?" presentations. Groups 3 and 4.
Thursday, Dec. 4	"What's New?" presentations. Groups 5, 6 and 7.
<b><u>Final paper due Friday, Dec. 12.</u></b>	