

## Bio69/173: Cell Signaling

	Date	Discussion Paper Subject	Assignments
1	Tue. Sept 17	Introduction	
2	Thur. Sept 19	G Protein-Coupled Receptors	
3	Tue. Sept 24	Receptor Tyrosine Kinases	
4	Thur. Sept 26	Small G proteins	
5	Tue. Oct 1	Phospholipid signaling	
6	Thur. Oct 3	PI3 kinase and Protein kinase B	Assignment #1 distributed Friday Oct. 4
7	Tue. Oct 8	Adenylate cyclase and Protein kinase A	
8	Thur. Oct 10	Ca <sup>++</sup> activated kinases	<b>Assignment #1 due Friday Oct. 11</b>
9	Tue. Oct 15	Signaling scaffolds	
10	Thur. Oct 17	Tor Signaling	
11 12 13	Tue. Oct 22 Thur. Oct 24 Tue. Oct 29	Visual Transduction	
14 15 16	Thur. Oct 31 Tue. Nov 5 Thur. Nov 7	Insulin Signaling	Assignment #2 distributed Friday Nov. 1 <b>Assignment #2 due Friday Nov. 8</b>
17 18 19	Tue. Nov 12 Thur. Nov 14 Tue. Nov 19	Cell Death Signaling	Assignment #3 distributed Tuesday Nov. 19 <b>Assignment #3 due Sunday Nov 24</b>

**Lectures:**

Bio69 is in the 2A time slot and most class meeting are from 2:00 – 3:50. For each class meeting there will be a discussion of a paper(s) from recent literature on the topic listed. The second hour of each class meeting will consist of lecture material to provide background for the next assigned paper.

The course will be divided into two parts. The first 10 class meetings will explore specific signaling systems. The discussion papers will either be from recent literature or a paper of historical interest. The remainder of the course will focus in detail on specific topics with an emphasis on topics important for human disease and/or physiology.

**Written assignments**

There will be 3 written assignments during the term with due dates listed above. These will involve a careful analysis of one or two papers from the literature and the assignment itself will consist of a series of questions about the paper(s). Students can work together on the assignments but the submitted work must be their own.

**Discussions**

The majority of this course will be the discussion of primary literature. One or two papers will be discussed per class session. The class discussions are the most important part of the course and student participation is critical to ensure a quality educational experience. **Therefore, it is vital that the papers are read very carefully prior to class and students are prepared to discuss them.** In addition, each student will give an oral presentation towards the end of the term.

**Attendance**

Since there is a participation component of the course, attendance can be considered mandatory. You cannot discuss papers if you are not present. I understand that many of you will be attending interviews for post-graduate programs. Let me know when you will be missing class due to an interview, so we can arrange a makeup assignment.

**Grading:**

Grading will be, in part, based on three out-of-class written assignments. The assignments will consist of a series of questions that are focused on paper(s) in the primary literature. In addition, there will be a class participation grade, which will include contributions to the discussions.

Written assignment #1	22%
Written assignment #2	22%
Written assignment #3	22%
Class Participation	34%

Graduate students are graded pass/no pass

**Additional Matters**

If anyone has any documented disabilities, including invisible disabilities like chronic disease or learning disabilities, feel free to discuss with me at any time accommodations that may be helpful to you.

The Dartmouth Academic Honor Principle can be found in the Dartmouth College Bulletin. There are several aspects of the Honor Principle that directly apply to this course. Students are encouraged to discuss the written assignments amongst themselves. However, the final written work must be entirely in your own words. No computer file sharing is allowed. In addition, sources including websites, must be cited properly. Failure to adhere to these rules is a direct violation of the Academic Honor Principle.

Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me to discuss appropriate accommodations.