

Biophysics of Macromolecules
Bi/Ch 132
T/TH 1-2:30pm - 200 Broad

Syllabus
Fall Term, 2008

Instructors:

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Course Material:

The class is designed to introduce you to biophysical methods and issues. Please consult the class web site (<http://www.its.caltech.edu/~bich132/>) for articles and further information.

Class Meetings:

The class will meet every Tuesday and Thursday in room 200 Broad at 1:00pm.

Requirements:

Groups of 3-4 students will be formed to present research papers in accordance with one of the topics discussed in the course. Each student will be responsible for presenting his or her assigned section(s) to the class. Everyone in the group is expected to participate and present a similar amount of material. *Use Powerpoint only.*

In addition to a topic presentation, each student is required to develop an original research proposal. Further details will be discussed in class.

Topics:

Barton	Beauchamp
1. Single Molecule Experiments I	1. Biophysical Applications of Mass Spectrometry
2. Single Molecule Experiments II	2. Chemical Imaging
3. <i>In vivo</i> Sensors	3. Biomolecule Reaction Dynamics
4. Nanoparticle Probes and Sensors	4. Membrane Biophysics
5. Arrays	5. Dynamic Crystallography

Bi/Ch 132 Speaker Schedule:

	Tuesday	Thursday
Sept. 30, Oct. 2	Organizational Meeting	Barton
Oct. 7, 9	Barton	Beauchamp
14, 16	Barton	Beauchamp
21, 23	Beauchamp	TBA
28, 30	Beauchamp #1	Barton #1
Nov. 4, 6	Barton #2	Barton #3
11, 13	Beauchamp #2	Beauchamp #3
18, 20	Barton #4	Barton #5
25, 27	Beauchamp #4	Thanksgiving
Dec. 2, 4	Beauchamp #5	No class term papers due