

## BIM 202: Cell & Molecular Biology for Engineers, Winter 2009

University of California, Davis  
Department of Biomedical Engineering  
CRN: 24865 (4 Units)

**Schedule:** Lectures: T,Th 10:00 – 11:50 AM, 2202 GBSF

**Instructor:** So(ichiro) Yamada (syamada@ucdavis.edu)  
Office: 2317 GBSF, Phone: (530) 752-7251

**Office Hours:** T,Th 9:00 – 10:00 AM

**Textbook:** *Molecular Biology of the Cells*, Alberts et al., 5/e 2008 Garland Science  
Online (4<sup>th</sup> ed): <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=mboc4.TOC>

**Homework and Exams:** Homework problems will be assigned, but it will not be graded. The exams will be open book and in a format similar to homework assignments. The grade will be based on; midterm I (30%), midterm II (30%), and final exam (40%).

### Course Schedule:

	Date	Topic	HW #	MBC 5 <sup>th</sup> ed
1	Jan 6	Introduction to cells		Ch1,8,9
2	Jan 8	Manipulating proteins	#1	Ch3,8
3	Jan 13	Manipulating genes		Ch8
4	Jan 15	Nuclear transport	#2	Ch12
5	Jan 20	Sorting in ER and Protein coats	#3	Ch13
6	Jan 22	Vesicle budding and fusion		Ch13
7	Jan 27	<b>Midterm I (30%)</b>		
8	Jan 29	Biochemistry of actin	#4	Ch16
9	Feb 3	Listeria motility		Ch16
10	Feb 5	Regulation of cell motility	#5	Ch16
11	Feb 10	Actin-based motor proteins		Ch16
12	Feb 12	Molecular basis of muscle contraction		Ch16
13	Feb 17	<b>Midterm II (30%)</b>		
14	Feb 19	Microtubule dynamics	#6	Ch16
15	Feb 24	Microtubule-based motor proteins		Ch16
16	Feb 26	Mechanics of cell division	#7	Ch17
17	Mar 3	Cell-extracellular matrix adhesion	#8	Ch19
18	Mar 5	Cell-cell adhesion I		Ch19
19	Mar 10	Cell-cell adhesion II		Ch19
20	Mar 12	<b>Final (40%)</b>		