

## PROTEINS AND ENZYMES (BIOCHEMISTRY 565)

- Semester:** Fall, 2007
- Meetings:** BSW 237: MWF 9:00-9:50 (3 units)  
*Section 1 (Weeks 1-4, Cordes):* Protein structure, stability, and evolution, with bioinformatics  
*Section 2 (Weeks 5-8, Montfort):* Proteins in the cell, purification and characterization  
*Section 3 (Weeks 9-16, Bandarian):* Enzymes, kinetics and mechanism
- Instructors:** Bill Montfort, BSW 533, montfort@email.arizona.edu (coordinator)  
Matt Cordes, BSW 436, cordes@email.arizona.edu  
Vahe Bandarian, BSW 537, vahe@email.arizona.edu
- T.A.:** None available
- Office Hrs:** *Montfort:* Immediately after class or by appointment.  
*Cordes:* Mon. 11-12 or by appointment.  
*Bandarian:* Mon. 11-12 or by appointment.
- Website:** <http://www.biochem.arizona.edu/classes/bioc565/>
- Questions:** You are strongly encouraged to ask questions at any time during lecture, or by email (but during class is best!).
- Exams:** *Exam 1 (Cordes):* Sept. 14  
*Exam 2 (Montfort):* Oct. 12  
*Exam 3 (Bandarian):* Dec. 5 (Last day of class)
- Grading:** Grades will largely be determined by the exam scores. A few problem sets will be handed out as well for work at home.
- Background:** Students are expected to have completed undergraduate courses in Biochemistry and Physical Chemistry.
- Text:** Original scientific articles, reviews and handouts will be used to illustrate most points. There is no required text; however, we recommend you acquire either *Fersht* or *Creighton* (or both) as good reference books to accompany the course material. A few copies of *Fersht*, *Creighton and van Holde* are on reserve in the Science Library.  
Alan Fersht, *Structure and Mechanism in Protein Science*, Freeman (1999).  
Thomas E. Creighton, *Proteins: Structures and Molecular Properties (2nd edition)*, Freeman (1993).  
Kensal E. van Holde, W. Curtis Johnson and P. Shing Ho, *Principles of Physical Biochemistry 2nd edition*, Pearson (2006).  
Carl Branden & John Tooze, *Introduction to Protein Structure (2nd edition)*, Garland (1999).  
Paul F. Cook & W. W. Cleland, *Enzyme Kinetics and Mechanism*, Garland (2007).
- Computing:** Students are expected to become familiar with the use of several software programs and the use of websites relevant to biological structure. For these purposes, each student will have a user account for the biochemistry computer lab in BSW 243. Students are welcome to use their own personal computers for this work as well, but the instructors are likely to be unable (or willing) to fix computer-specific difficulties.