

BIOCHEMISTRY-PROTEINS
CHEM 3811-1
Autumn 2010

Instructor: Dr. Martin Margittai

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Text: Lehninger Principles of Biochemistry, Fifth Edition, Nelson and Cox, Freeman and Company, 2008

Lectures: 11-11:50 am, MWF, Olin 105

Office Hours: Tuesday and Thursday 11:00 a.m.-noon, or by appointment.

Homework: Homework will be given out occasionally. These assignments will not be graded. However, it is highly recommended to work through the problems as similar ones may appear in the exams.

Exams: There are 3 1-hour midterm exams during the quarter, plus a 2-hour cumulative final exam. Each exam is worth 100 points. Exam questions will be non-multiple choice.

If you miss a 1-hour midterm exam, then your final exam will be counted twice and replace the missed midterm exam. With one exception, **THERE WILL BE NO MAKEUP EXAMS**. The only exception to the no-makeup policy will be for members of a university team or group, e.g. athletic team or music group scheduled to be away from campus at the time of the exam. You must inform your instructor of this prior to the exam and make arrangements at that time for a makeup exam.

If you take all 3 midterm exams and your grade on the final exam is better than one of your midterm exam grades, then your final exam will be counted twice and replace your lowest midterm exam grade.

There will be clicker questions during the lecture starting from week 2. Points for those questions will be given based on participation (50%) and correctness (50%).

Grading:	midterm exams	300 points
	final exam	100 points
	clicker questions	50 points

The assignment of a letter grade to a given numerical grade will depend on the overall class performance. However, if everybody does well, grades will not be curved down.

Dates	Topics Covered	Reading Chapters
09/13/10	Introduction, Foundations	1
09/15/10	Water: Weak Interactions and Solvation	2
09/17/10	Water: Weak Acids and Bases	2
09/20/10	Water: Buffers and Hydrolysis	2
09/22/10	Amino Acids	3
09/24/10	Protein Primary Structure	3
09/27/10	Protein Purification	3
09/29/10	Protein Sequencing and Synthesis	3
10/01/10	Sequence Analysis	3
10/04/10	Exam 1	
10/06/10	Overview of Protein Structure	4
10/08/10	Secondary Structure	4
10/11/10	Tertiary Structure	4
10/13/10	Tertiary Structure/ Quaternary Structure	4
10/15/10	Protein Denaturation and Folding	4, reviews
10/18/10	Assisted Protein Folding	4, reviews
10/20/10	Assisted Protein Folding and Degradation	4, reviews
10/22/10	Protein Dynamics, Misfolding and Disease	4, reviews
10/25/10	Exam 2	
10/27/10	Protein Function: Myoglobin	5
10/29/10	Protein Function: Hemoglobin	5
11/01/10	Protein Function: Immune System/Actin, Myosin	5
11/03/10	How Enzymes Work	6
11/05/10	Enzyme Kinetics 1	6
11/08/10	Enzyme Kinetics 2	6
11/10/10	Enzymatic Reactions 1	6
11/12/10	Exam 3	
11/15/10	Enzymatic Reactions 2	6
11/17/10	Regulatory Enzymes	6
11/21/10	Final Exam (comprehensive), 12:00 pm – 1:50 pm, Olin 105	