

## **CHEM 3811: Biochemistry – Proteins**

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Office Hours: Monday and Wednesday 11:30-12:30

Text: Lehninger Principles of Biochemistry, 5th or 6th Edition, Nelson and Cox, W.H. Freeman and Company, 2014.

<b>Topic</b>	<b>Nelson and Cox 6th Ed.</b>
Cellular foundations	1.1
Chemical foundations	1.2
Physical foundations	1.3
Weak interactions	2.1
Weak acids and Weak bases	2.2
Buffers	2.3
Water as a reactant	2.4
Amino acids	3.1
Peptides and Proteins	3.2
Working with proteins	3.3
Primary Structure	3.4
Sequence analysis	3.5
Overview of protein structure	4.1
Secondary Structure	4.2
Tertiary Structure	4.3
Quaternary Structure	4.3
Protein Denaturation/Folding	4.4
Myoglobin/Hemoglobin	5.1
Immune System	5.2
Actin, Myosin, and Molecular motors	5.3
Enzymes/Intro	6.1
How enzymes work	6.2
Enzyme Kinetics	6.3
Catalytic Strategies	6.4
Enzyme regulation	6.5

Peer-Group Participation: There will be 3 in-class assignments. The total value of these exercises is 75 points.

Hour Exams: Three hour exams, each worth 125 points

Exam I: Friday, June 19, 2015   Exam II: June 26, 2015   Exam III (final exam): July 3, 2015

Total Points = 450 points