MMBB 300/380
SURVEY and INTRODUCTORY BIOCHEMISTRY
Summer 2012

MTWRF 8:30-10:20, Ag Sci 104; MMBB 380 also meets TR 10:30-11:20, Ag Sci 204

Instructor: Martina Ederer, mederer@uidaho.edu, 885-2037, LSS 164A
Office hours: MWF 10:30-12:00 or by appointment

Textbook: Nelson & Cox, A. Lehninger Principles of Biochemistry, 5th ed, 2009

Date			Tentative topic	Reading
May	14	M	1 Introduction; Cellular Organization, Biopolymers	Chapter 1
	14	M	2 Chemical Bonding; Properties of H_2O	Chapter 2
	15	T	3 pH & Buffers	Chapter 2
	15	T	4 Carbon Chemistry	Chapter 2
	15	*T*	*Extra Hour I: PICERAS, pH and buffers*	*The seven pillars of life*
	16	W	5 Amino Acids	Chapter 3
	16	W	6 Amino Acids & Peptides	Chapter 3
	17	R	7 Protein structure	Chapter 4
	17	R	8 Protein Structure	Chapter 4
	17	*R*	*Extra Hour II: amino acids*	
	18	F	9 Myoglobin	Chapter 5
	18	F	10 Hemoglobin	Chapter 5
	21	*M*	*STUDY DAY*	
	22	**T**	**EXAM I** **Lectures 1-10**	
	22	*T*	*Extra Hour III:* *Amino acid & Protein Analysis*	
	23	W	11 Protein Structure and function	Chapter 5
	23	W	12 Protein Structure and function	
	24	R	13 Enzyme Kinetics	Chapter 6
	24	R	14 Enzyme Kinetics	
	24	*R*	*Extra Hour IV: Enzyme Kinetics*	
	26	F	15 Enzyme Kinetics	
	26	F	16 Catalysis	Chapter 6
	28	**M**	***MEMORIAL DAY***	
	29	T	17 Catalysis	
	29	T	18 Catalysis	
	29	*T*	*Extra hour V: Special topics*	
	30	W	19 Carbohydrates	Chapter 7
	30	W	20 Metabolism: An overview	Chapter 13
	31	R	*STUDY DAY*	
		R	*Extra hour VI: Bioenergetics*	
June 01		**F**	**EXAM II Lecture 11-20**	

June 4	M	21 Glycolysis	Chapter 14
4	M	22 Glycolysis	
5	T	23 Guconeogenesis	Chapter 14
5	T	24 *Pentose Monophosphate Pathway*	Chapter 14
5	T	*Extra Hour VII : Glyoxylate cycle*	
6	W	25 TCA cycle	Chapter 16
6	W	26 TCA cycle	*Dr, Cole*
7	R	27 Regulation of Metabolism	Chapter 15
7	R	28 special topics	
7	R	*Extra Hour VIII: Regulation of Metabolism*	
8	F	29 Electron transport	
8	F	30 Electron transport	Chapter 19
11	M	*STUDY DAY*	
12	**T**	**EXAM III Lecture 21-29**	
	T	*Extra hour IX: Chemiosmotic Theory*	
13	W	31 Photosynthesis	Chapter 19
13	W	32 Photosynthesis	
14	R	33 Nucleic Acids	Chapter 8
14	R	34 Nucleic Acids	
14	R	*Extra hour X: Biotechnology*	
15	F	35 Nucleic Acids	Chapter 24
15	F	36 Nucleic Acids	
18	M	37 Nucleic Acids	Chapter 9
18	M	38 Lipids I	Chapter 10
19	T	39 Lipids II	
19	T	40 Lipids III	
19	T	*Extra Hour XI: Membranes and Transport*	
20	W	41 Molecular Motors	Dr. Cole
20	W	42 Molecular Motors	
21	Th	*STUDY DAY*	
	Th	*Extra Hour XII: Molecular Motors*	
22	**F**	**Exam IV Lecture 30-42**	
25	**M**	**<u>Optional, comprehensive Final exam</u>** (can replace the regular exam with the lowest score)	