

# BIOC 205 - Biochemistry I - Course Calendar - Fall 2015

Lectures (Stafford Hall, Room 101): Mon/Wed/Fri; 10:50 A.M. – 11:40 A.M.  
 Review sessions (Given Building, Room C443) and Exams: Mon 4:00 P.M. – 6:00 P.M.

Textbook: Garrett & Grisham Biochemistry, 5<sup>th</sup> Edition  
 Course Director/Instructor: Jay Silveira

Date	Lecture	Topic	PS Due	Textbook Reading	Optional Additional Problems	Exams
8/31 (M)	1	Introduction/Biomolecules		1.2-1.3 (pp. 4-10)	Ch. 1: 5a-d	<b>EXAM 1</b> (Lectures 1-10) Monday, Sep 28 4:00 – 6:00 P.M. Med Ed 200
9/2 (W)	2	Bonding + Water		1.4 (pp.10-17); 2.1 (pp. 30-37); 2.4 (p. 47)	Ch. 1: 7-10	
9/4 (F)	3	pH + Buffers	PS #1	2.2 (pp. 37-43); 2.3 (pp. 43-46)	Ch. 2: 1,3-8, 10,13,16,21,23	
9/9 (W)	4	Amino Acids Overview		4.1-4.6 (pp. 77-93)	Ch. 4: 13	
9/11 (F)	5	The Amino Acids Part I	PS #2	4.1 (pp.79-83)		
9/14 (M)	6	The Amino Acids Part II		4.1 (pp.79-83)	Ch. 4: 2,4-9,14,16,18,19	
9/16 (W)	7	Proteins – 1 <sup>o</sup> Structure		4.7 (pp. 93-97); 5.1 (pp. 101-105)	Ch. 4: 15	
9/18 (F)	8	Proteins – 2 <sup>o</sup> Structure	PS #3	6.1-6.3 (pp. 141-153)	Ch. 6: 1,4,8,9	
9/21 (M)	9	Proteins – 3 <sup>o</sup> Structure		6.4 (pp. 153-180)	Ch. 6: 10,11	
9/23 (W)	10	Proteins – 4 <sup>o</sup> Structure		6.5 (pp. 180-188)	Ch. 5: 1	
9/25 (F)	11	Protein Purification	PS #4	5.2 (pp. 105-111)	Ch. 6: 7	<b>EXAM 2</b> (Lectures 11-19) Monday, Oct 19 4:00 – 6:00 P.M. Med Ed 200
9/28 (M)	12	Protein Analysis		5.3-5.4 (pp. 112-123)	Ch. 5: 2-5	
9/30 (W)	13	Enzyme Kinetics		13.1-13.2 (pp.407-414); 13.6 (pp.435-436)		
10/2 (F)	14	Michaelis-Menten	PS #5	13.3 (pp. 414-423)	Ch. 13: 1-3,9-12,16	
10/5 (M)	15	Inhibition of Enzymes		13.4 (pp. 423-429)	Ch. 13: 4,5,7	
10/7 (W)	16	Regulation of Enzymes		15.1-15.4 (pp. 481-492); S.F. (pp. 497-509)	Ch. 15: 1,2,7,10,12,15	
10/9 (F)	17	Enzyme Mechanisms	PS #6	13.5 (pp. 429-435)		
10/12 (M)	18	Catalytic Mechanisms I		14.1-14.5 (pp. 447-462)	Ch. 14: 11-18	
10/14 (W)	19	Catalytic Mechanisms II		14.6 (pp. 463-476)	Ch. 14: 1,3,5,9,11	
10/16 (F)	20	Monosaccharides	PS #7	7.1-7.2 (pp. 193-204)	Ch. 7: 1,5	<b>EXAM 3</b> (Lectures 20-30) Monday, Nov 16 4:00 – 6:00 P.M. Med Ed 200
10/19 (M)	21	Polysaccharides		7.3-7.4 (pp. 204-217)	Ch. 7: 4,14,17,18	
10/21 (W)	22	Lipids		8.1-8.7 (pp. 233-249)	Ch. 8: 2-6	
10/23 (F)	23	Thermodynamics – Laws & $\Delta G$	PS #8	3.1-3.4 (pp. 51-59)	Ch. 14: 10, Ch. 3: 1,3,5,6,15	
10/26 (M)	24	ATP Hydrolysis		3.5-3.8 (pp. 59-70)	Ch. 3: 8, 10,11	
10/28 (W)	25	Metabolism Overview I		17.1-17.2 (pp.551-557)	Ch. 17: 1-3	
10/30 (F)	26	Metabolism Overview II	PS #9	17.3 (pp.557-565)	Ch. 17,4-9,12,15	
11/2 (M)	27	Introduction to Glycolysis		18.1-18.2 (pp. 577-580); 18.5 (pp. 595-598)		
11/4 (W)	28	Reactions of Glycolysis I		18.3 (pp. 580-588)		
11/6 (F)	29	Reactions of Glycolysis II	PS #10	18.4 (pp. 588-595)	Ch. 18: 1-2, 4-5,7-9,11-13,15-16	
11/9 (M)	30	Regulation of Glycolysis		18.3-18.4 (pp. 581-2, 585-6, 594-5);18.6 (p. 598)	Ch. 18: 3, 17, 21	
11/11 (W)	31	Pyruvate Dehydrogenase		19.1-19.2 (pp. 609-618)	Ch. 19: 4,9	<b>EXAM 4</b> (Lectures 31-40) Friday, Dec 18 7:30 – 10:15 A.M. Med Ed 100
11/13 (F)	32	Citric Acid Cycle Reactions	PS #11	19.3-19.4 (pp. 618-625)	Ch. 19: 1,7,10,16,17	
11/16 (M)	33	Citric Acid Cycle Integration		19.5-19.7 (pp. 625-631)		
11/18 (W)	34	Citric Acid Cycle Regulation		19.8 (pp. 632-635)	Ch. 19: 21	
11/20 (F)	35	Free Energy & Redox Reactions	PS #12	3.9 (pp. 70-73)	Ch. 20: 1,2	
11/30 (M)	36	Electron Transport Chain I		20.1-20.2 (pp. 643-651)	Ch. 20: 7	
12/2 (W)	37	Electron Transport Chain II		20.2-20.3 (pp. 652-661)	Ch. 20: 14,15,18	
12/4 (F)	38	ATP Synthase	PS #13	20.4 (pp. 661-670)	Ch. 20: 6	
12/7 (M)	39	Oxidative Phosphorylation I		20.5-20.6 (pp. 670-674)		
12/9 (W)	40	Oxidative Phosphorylation II	PS #14	20.5-20.6 (pp. 670-674)	Ch. 20: 5, 8-13,17,20	