

FUNDAMENTALS OF BIOCHEMISTRY M-503

SCHEDULE FALL 2006

COURSE DIRECTOR:

WARREN MASKER, PH.D. PROFESSOR OF BIOCHEMISTRY

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<u>Session</u>	<u>Date</u>	<u>Time</u>	<u>Room</u>	<u>Subject</u>	<u>Type</u>	<u>Faculty</u>
1	9/6 (W)	9:30	SFC322	Introduction / Solvation	L	Masker / Giangiacomo
2	9/6 (W)	10:30	SFC322	Acid Base Balance	L	Giangiacomo
3.	9/8 (F)	10:00	SFC322	Amino acids	L	Grubmeyer
4.	9/8 (F)	11:00	SFC322	Protein Structure	L	Grubmeyer
5.	9/11 (M)	9:30	SFC322	Protein Structure II protein architecture; active sites	L	Grubmeyer
6.	9/11 (M)	10:30	SFC322	Quiz # 1 Problem solving session	PS	Grubmeyer
7.	9/13 (W)	9:30	SFC322	Quiz # 2 Introduction to Ligand Binding	L	Giangiacomo
8.	9/13 (W)	10:30	SFC322	Basic enzyme kinetics enzymes as catalysts	L	Grubmeyer
9.	9/15 (F)	10:00	SFC322	Inhibition & inactivation of enzymes	L	Grubmeyer
10.	9/15 (F)	11:00	SFC322	Problem Solving Session	PS	Grubmeyer
11.	9/18 (M)	9:30	SFC322	Ligand Binding	L	Giangiacomo
12.	9/18 (M)	10:30	SFC322	Equilibrium Binding for a Single Site Receptor	L	Giangiacomo
13.	9/20 (W)	9:30	SFC322	Equilibrium Binding for a Single Site Receptor II	L	Giangiacomo
14.	9/20 (W)	10:30	SFC322	Statistical Considerations in Multi site binding	L	Giangiacomo
15.	9/22 (F)	10:00	SFC322	Multi Site Binding II	L	Giangiacomo

16.	9/22 (F)	11:00	SFC322	Problem Solving Session	PS	Giangiacomo
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DIRECTED SELF STUDY: TCA CYCLE

17.	9/25 (M)	9:30	A	Fuel Metabolism I: ATP / ADP and oxidative metabolism	L	Burke
18.	9/25 (M)	10:30	A	QUIZ # 3 Fuel Metabolism II : TCA cycle, roles of vitamins and coenzymes	L	Burke
19.	9/27 (W)	9:30	A	Fuel Metabolism III: Oxidative phosphorylation.	L	Burke
20.	9/27 (W)	10:30	A	Fuel Metabolism IV: Glycolysis, aerobic and anaerobic	L	Collins
21.	9/29 (F)	10:00	A	Fuel Metabolism V: Fatty acid oxidation and ketone bodies	L	Chong
22.	9/29 (F)	11:00	A	Problem Solving Session	L	Chong
23.	10/ 02 (M)	9:30	SFC 322	Review	R	Grubmeyer
24.	10/02 (M)	10:30	A	Review	R	Burke
25.	10/04 (W)	10:00	SFC322	EXAM I	E	

DIRECTED SELF STUDY: GLYCOLYSIS

26.	10/06 (F)	10:00	A	Dietary states I: Overview of fuel utilization and caloric balance	L	Shore
27.	10/06 (F)	11:00	A	Problem Session: Dietary States II	PS	Shore

DIRECTED SELF STUDY: CARBOHYDRATES

28.	10/09 (M)	9:30	A	Dietary States III: Fasting & feeding	L	Shore
29.	10/09 (M)	10:30	A	Dietary States IV: Insulin and glucagon	L	Collins
30.	10/11 (W)	9:30	A	QUIZ # 4 Carbohydrates I: Overview, dietary carbohydrates, digestion & transport	L	Collins
31.	10/11 (W)	10:30	A	Carbohydrates II: Glycogen synthesis & degradation; gluconeogenesis	L	Collins

32.	10/ 13 (F)	10:00	A	Carbohydrates III: Maintenance of blood sugar	L	Collins
33.	10/13 (F)	11:00	A	Problem Session. Carbohydrates IV	PS	Collins
34.	10/ 16 (M)	9:30	A	Carbohydrates V: Interconversions of sugars	L	Burke

DIRECTED SELF STUDY: LIPIDS

35.	10/16 (M)	10:30	A	Lipids I: Structure & biological properties digestion	L	Chong
36.	10/18 (W)	9:30	A	Quiz # 5 Lipids II: Fatty acid synthesis	L	Chong
37.	10/18 (W)	10:30	A	Lipids III: Cholesterol synthesis & function	L	Chong
38.	10/ 20 (F)	10:00	A	Lipids IV: Bile acid synthesis. Transport of blood lipoproteins & atherogenesis	L	Chong
39.	10/20 (F)	11:00	A	Problem solving session	PS	Chong

DIRECTED SELF STUDY: AMINO ACIDS

40.	10/23 (M)	9:30	A	Nitrogen Metabolism I: protein digestion, amino acid uptake, the urea cycle	L	Grubmeyer
41.	10/ 23 (M)	10:30	A	Quiz # 6 Nitrogen Metabolism II: Interconversion & degradation of amino acids	L	Grubmeyer
42.	10/25 (W)	9:30	A	Nitrogen Metabolism III: Special products derived from amino acids. The vitamin B ₁₂ connection	L	Grubmeyer
43.	10/25 (W)	10:30	A	Nitrogen Metabolism IV: Synthesis & recycling of nucleotides	L	Grubmeyer
44.	10/27 (F)	10:00	A	Problem Solving Session	PS	Collins
45.	10/27 (F)	11:00	A	Problem Solving Session	PS	Collins

DIRECTED SELF STUDY: GLYCOPROTEINS & PROTEOGLYCANS

46.	10/30 (M)	9:30	A	Quiz # 7 Glycoproteins & proteoglycans	L	Stitt
47.	10/30 (M)	10:30	A	The extracellular Matrix	L	Stitt
48.	11/ 01 (W)	9:30	A	Problem Solving Session	PS	Stitt
49.	11/03 (F)	10:00	A	Review of carbohydrate & lipid metabolism	R	deRiel

50.	11/03 (F)	11:00	A	Review of nitrogen metabolism	R	Grubmeyer
51.	11/06 (M)	10:00	SFC322	EXAM II	E	
52.	11/15 (W)	9:30	SFC322	Special Topics in Biochemistry Protein Modification	L	Haines
53.	11/15 (W)	10:30	SFC322	Special Topics in Biochemistry: Protein modification II: Methylation phosphorylation, sumoylation	L	Haines
54.	11/20 (M)	9:30	SFC322	Special topics in Biochemistry Proteomics	L	Merali
55.	11/20 (M)	10:30	SFC322	Special topics in Biochemistry Enzymatic Activity of DNA Polymerase	L	Masker
THANKSGIVING HOLIDAY						
56.	11/ 27 (M)	9:30	SFC322	Special topics in Biochemistry Ion Channels	L	Giangiaco
57.	11/27 (M)	10:30	SFC322	Special topics in Biochemistry Ion channels II	L	Giangiaco
58.	11/29 (W)	9:30	SFC322	Special topics in Biochemistry Fat Soluble Vitamins	L	D. Soprano
59.	11/29 (W)	10:30	SFC322	Special topics in Biochemistry Matchmaker Proteins	L	Masker
60.	12/11 (M)	8:00	SFC322	FINAL EXAM	E	