

SPRING SEMESTER 2006
SURVEY IN BIOCHEMISTRY
CELLULAR PHYSIOLOGY AND BIOCHEMISTRY
CHEMISTRY 361/461 and BIOLOGY 366

INSTRUCTORS: Drs. D. Mota de Freitas, D. Castignetti and A. Rotermond

TIME AND LOCATION: LECTURE: T-TH 1:00-2:15pm, Life Sciences Building-142

DISCUSSION: M or W or F 11:30-12:20 in FH-007

REQUIRED TEXT: Berg, Tymoczko, and Stryer (2002) *Biochemistry*, 5th Ed.

RECOMMENDED TEXT: Gumpert (2002) *Student Companion to Accompany Biochemistry*, 5/e

TENTATIVE SCHEDULE OF LECTURES AND EXAMINATIONS

Lecture#	Day	Date	Topics from Stryer <i>et al.</i>	Chapter	Lecturer(s)
1	T	1/17	Introduction & Genomic Revolution	1	DC, DF, AR
2	Th	1/19	Flow of Genetic Information	5	DC
3	T	1/24	Exploring Genes	6	DC
4	Th	1/26	Water and pH	3	DF
5	T	1/31	Amino Acids, Peptides	3	DF
6	Th	2/2	Proteins, Exploring Proteins	3,4	DF
7	T	2/7	Exploring Proteins	4	DF
8	Th	2/9	Examination I - Chapters 1, 3 - 6		
9	T	2/14	Enzymes Kinetics	8	DF
10	Th	2/16	Enzymes Inhibition	8	DF
11	T	2/21	Enzyme Mechanisms	9	DF
12	Th	2/23	Allosterism & Hemoglobin	10	DF
13	T	2/28	Carbohydrates	11	DF
14	Th	3/2	Lipids & Membranes	12	DF
	T, Th	3/6-3/10	Spring Break		
15	T	3/14	Channels & Pumps	13	DF
16	Th	3/16	Bioenergetics	14	DF
17	T	3/21	Signal Transduction	15	DF
18	Th	3/23	Examination #2- Chapters 8 - 15		
19	T	3/28	Glycolysis	16	DC
20	Th	3/30	Gluconeogenesis	16	DC
21	T	4/4	Citric Acid Cycle	17	DC
22	Th	4/6	Oxidative Phosphorylation	18	DC
23	T	4/11	Biosynthesis of Nucleotides	25	DC
24	Th	4/13	Pentose Pathway	20	AR
25	T	4/18	Glycogen Metabolism	21	AR
26	Th	4/20	Fatty Acid Metabolism	22	AR
27	T	4/25	Amino Acid Oxidation	23	AR
28	Th	4/27	Biosynthesis of Amino Acids	24	AR
29	T	5/2	Biosynthesis of Lipids	26	AR
30	Th	5/4	Integration of Metabolism	30	AR
	F	5/12	Final Examination (1:45 pm - 3:45 pm): (60% Chapters 16-18, 20-26, 30; and 40% Chapters 1, 3 - 6, and 8 - 15)		

EXAMINATION AND GRADING PROCEDURES AND POLICY

This Biochemistry course employs either multiple choice or essay or both formats for testing. Three major lecture examinations will be administered during this spring session. The first two examinations are worth 30% apiece, while the cumulative final examination represents 40%. The three grades will be combined into one final % grade, which will be measured using the following scale:

A = 100-85
A- = 84-80
B+ = 79-75
B = 74-70
B- = 69-65
C+ = 64-60
C = 59-55
C- = 54-50
D+ = 49-45
D = 44-40
F = Less than 40

Active participation in your Discussion session throughout the entire semester may be beneficial in two ways. First it will provide information on problem solving. Second, satisfactory achievement on unannounced quizzes (i.e., $\geq 60\%$) will be used to adjust your final grade upward by up to 3 points if you are on the threshold of an higher letter grade.

Makeup examinations will be given at our discretion on Wednesday, May 10, the study day, and will probably be in essay and problem format. Minimally, a written doctor's or judge's excuse and **notification prior to the examination** will be needed by the appropriate Instructor. **NO EXCEPTIONS WILL BE MADE!**

Outside of class, you may contact each of your Instructors during regularly scheduled Office Hours, which are T-Th 2:30-4 PM. Their office locations, telephone numbers, and e-mail addresses are:

Dr. Freitas, Flanner Hall-022, (773) 508-3091 dfreita@luc.edu

Dr. Castignetti, Quinlann (LSB) 227, (773) 508-3638 dcastig@uc.edu

Dr. Rotermund, Quinlann (LSB) 230, (773) 508-3630 aroterm@luc.edu

If you are unable to contact the Instructor directly, or by voice or e-mail, you may leave your message with the Biology Departmental Office, (773) 508-3620, -3623 for Drs. Castignetti and Rotermund or with the Chemistry Departmental Office, (773) 508-3100 for Dr. Mota de Freitas.

Independent Effort

Finally, as a pre-professional student at Loyola University Chicago, it should be obvious at this stage of your career that all answers on examinations must arise from independent, honest efforts. Nothing less is acceptable in the Land of Lincoln. Thus, any student found to be cheating on any examination will receive an automatic "0" for that examination, and his (her) name will be brought to the attention of Dr. Jeffrey Doering, the Chairperson of the Biology Department, Dr. David Crumrine, the Chairperson of the Chemistry Department, as well as to the Dean of the College of Arts and Sciences, who will decide whether further disciplinary action is necessary. Together, we encourage you to become the best that you can be, and will work with you to achieve that goal. To this end, we wish you every success!!!

Blackboard and Lecture Notes

The Instructors plan to use Blackboard to distribute lecture notes and slides. The web address for this site is found at Loyola's homepage. Go to "Loyola links" and then click on "Blackboard." Blackboard will ask for your universal ID and password and once these have been correctly entered, Blackboard will list all of those courses for which you are enrolled and for which a Blackboard course exists. Chemistry 361 or Biology 366 should be one of those courses. We will make every effort to have the materials that are to be posted on the site at least a day before the lecture so that you can print them and bring them to class. A word of foreknowledge is that the PowerPoint presentations can be quite large (on the order of megabytes) and hence, if one does not have a high-speed internet connection at home, one should consider using Loyola's computer resources to download the materials.

Dr. Rotermund will also place materials on Room Reserve at the Cudahy Library, and will also distribute selected handouts of his lecture notes to the class as needed.

Error Policy

The instructors reserve the right to correct any inadvertent error contained in this syllabus.