

Lecturers: *Dr. Frank Deis* Nelson A-311, email [deis@rci.rutgers.edu](mailto:deis@rci.rutgers.edu).  
phone 732-445-2814. Office hours Tue. 12 to 2, other days by chance.  
T.A. Aina, email [ananda@rci.rutgers.edu](mailto:ananda@rci.rutgers.edu)

Syllabus: Required, Berg/Tymoczko/Stryer's "Biochemistry", 7th Edition (2011).  
Recommended, "Companion" by Deis et al., 7th ed. (2011).  
The sixth editions can also be used. Text and companion should match.  
Please visit book website <http://www.whfreeman.com/berg7e>  
**Study:** <http://www.rci.rutgers.edu/~molbio/Courses/301/berg6.html>

Date	Topic	Chapter
Sep 1	Biochemistry, An Evolving Science	Ch. 1
6	Protein Composition & Structure	Ch. 2
8	(Monday Classes)	
13	Exploring Proteins & Proteomes	Ch. 3
15	DNA, RNA, Genetic Information	Ch. 4
20	Exploring Evolution & Bioinformatics	Ch. 6
22	Hemoglobin – a Protein in Action	Ch. 7
27	Enzymes & Carbohydrates	Ch. 8 & 11
29	Lipids & Cell Membranes,	Ch. 12
Oct 4	<b>FIRST TEST</b>	
6	Channels & Pumps	Ch. 13
11	Signal Transduction	Ch. 14
13	Metabolism – cofactors, energy	Ch. 15
18	Glycolysis	Ch. 16
20	Gluconeogenesis	Ch. 16
25	Citric Acid Cycle	Ch. 17
27	Mitochondria, part I	Ch. 18
1	<b>SECOND TEST</b>	
Nov 3	Mitochondria, part II	Ch. 18
8	Pentose Phosphate Pathway (Calvin Cycle)	Ch. 20
10	Glycogen	Ch. 21
15	Fatty Acid Metabolism	Ch. 22
17	Urea Cycle, Amino Acid Catabolism	Ch. 23
22	One Carbon Metabolism ( <i>Thursday schedule</i> )	Ch. 24, 25
29	<b>THIRD TEST</b>	
Dec 1	Exploring Genes & Genomes	Ch. 5
6	DNA Replication and Repair	Ch. 28
8	RNA Synthesis and Processing	Ch. 29
13	Protein Synthesis	Ch. 30

**FINAL EXAM** Wednesday, Dec. 21, 12-2 PM (*non-cumulative*)

Examinations will be based on the material presented in lecture. You should therefore take careful notes in class. This should be reinforced and clarified by reading and homework assignments in the text. Seating for tests will be assigned in Hill 114 and an "overflow" room (SEC-207). If a bona-fide illness or emergency causes you to miss an exam, please call Dr. Deis at 732-445-2814 or leave a message with the Biochemistry Department Secretary at 732-445-3979 within 24 hours or you could be given a zero on the test. There will be an *automatic markdown* on all make-ups taken *for any reason*.

Grades etc. posted at <http://www.rci.rutgers.edu/~molbio/Courses/301/301r.html>.