

Brooklyn College
Department of Chemistry

Chemistry 4581/758.1G
Prof. Richard S. Magliozzo
Office Hours: Mondays 4:00 to 6:00 pm and by appointment
Rm. 3148N Office; 0150N Lab; Tel. 951-5000 X2845
e-mail: RMAGLIOZ@brooklyn.cuny.edu

Spring 2014

Text: *Biochemistry*, 3rd or 4th Edition, by Mathews, van Holde et al. (but some lecture notes come from Stryer; there is no need to have Stryer as there is overlap of the material. Stryer is available free on-line through PubMed. Other resources available on-line. See Course Documents on Bboard. The Course Outline is very flexible but we will definitely cover the first 5 topics in lecture.

Course Outline

Chap. 17 (Stryer) 12 (Mathews) Metabolism: Basic Concepts and Design

Handout (Chap. 27 Walsh) Enzymes; The Chemical Logic of Metabolic Pathways

Chap. 19 (S) 13 (M) Glycolysis

Chap. 20 (S) 14 (M) Citric Acid Cycle

Chap. 21 (S) 15 (M) Oxidative Phosphorylation

Chap. 26 (S) 17 (M) Photosynthetic Electron Transport and Phosphorylation

Chap. 22 (S) 14, 16 (M) Pentose Phosphate Pathway and Gluconeogenesis

Chap. 23 (S) 16, 13 (M) Glycogen Metabolism ?

Chap. 24 (S) 18 (M) Fatty Acid Metabolism?

Special Topic Nitric Oxide Synthase/Structure, Function, Physiology

Special Topic Cytochrome oxidase

Special Topic Molecular Biology approach to solving biochemical problems

Some of the above will be covered by students in Power Point presentations.

Final grades will be calculated as the average of three exam grades plus one presentation on metabolic pathways, enzymes, or other special topics.

Presentations: group projects, beginning in March through end of term

Homework assignments required but will not be graded.

Three exams including a cumulative (?) final. First exam approx. 2nd week of March on Glycolysis and Control of Glycolysis including pyruvate dehydrogenase; other exams as announced.