Chemistry 430 H: Honors Introduction to Biological Chemistry

Fall 2013
Place: GSB

Time: class starts at 8 am

Prerequisites:
General chemistry (101, 102), organic chemistry (261, 262), and general biology (101). Biology 202 is recommended.

Instructor:
Brian P. Hogan, Ph.D.
Office: Morehead Labs rm. 205
Email: hoganb@email.unc.edu  ****note: email is the best way to contact me****

Office hours:
Monday: 11-12pm. Tuesday: 11-12pm. Please email to make an appointment if you cannot make one of these times. I usually can accommodate.

Official Text: Foundations of Biochemistry, Loertscher and Minderhout. You will also need a second LARGE text, but you have several options that will be discussed on the first day of class.

Online course access: You can access our course at “sakai.unc.edu” and logging in with your ONYEN.

Classroom Resources: A variety of biochemistry textbooks and other books will be available for loan from the course's classroom library (i.e. my bookshelf).

Grading: There will be one formal, comprehensive final worth 200pts. Individual and group assignments, attendance, writing assignments, and participation will constitute the remaining 1700 points of the final grade. Attendance, Preparation, Participation, and Attitude are part of this number. Unexcused absences and tardiness will detract from your final grade. Consider attendance as mandatory. See me if you need to miss class. Grading will not be on a curve. Expect to have a minimum of one graded assignment approximately every 2-3 meetings. These will come in the form of papers, group work, quizzes, etc..

Grading based on mastery of skills:

Section 1  Amino Acids
Section 2  Protein Architecture
Section 3  Tools of Biochemistry
Section 4  Problem solving challenge—unknown enzyme
Section 5  Working with proteins
Section 6  Hb and Mb
Section 7  Ezymology
Section 8  Enzyme Kinetics

Section 9  Biochemical thermodynamics
Section 10  Understanding Metabolism
Section 11  Glycolysis
Section 12  Regulation of Glycolysis and Gluconeogenesis
Section 13  Glycogen
Section 14  TCA cycle and ETC
Section 15  The central Dogma: from gene to protein
Each section will have a “mastery” quiz or paper assigned worth 100 points each (total 1500 points)

Important dates to remember:
Visit the registrar’s website for a complete list of important dates (i.e. drop/add deadlines, final exam schedules, etc)

INTO ACTION….This is your chance to be a scholar!!!!
This course is not for those who wish to sit back and passively absorb information. Here the dynamic is turned around. I am here to guide the ship, you are the ones driving. I have put together a series of learning exercises that require you to develop your critical thinking skills. I have made available multiple biochemistry texts and given you my notes, now it’s time to see what it feels like to say, out loud, “I don’t know!” That’s OK. Not knowing will be the starting off point for us to understand the material in a way that you will never forget. YOU need to be active in this class. That means self motivation, hard work, and pushing past your intellectual comfort zone.

Dr. Hogan’s vision for you after this course: My primary objective is to prepare you for higher level courses in the discipline, whether they be in biochemistry, medicine, graduate school, whatever. If we have all given our best effort, you will leave this class with a toolset of critical thinking skills that will serve you a lifetime. WILL WE GET IT PERFECT? BECAUSE THAT’S WHAT I NEED FOR THE MCAT/DAT/LSAT/GRE….!!!!!! NO. We seek not perfection in the matter of education, but only progress towards greater understanding.

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:
"Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected."