Chem. 430 Introduction to Biological Chemistry

Spring 2013
Genome sciences 200
T,R 8:00 am

Prerequisites:
Consult undergraduate bulletin

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****
Phone: I do not have one.

Office hours:
TBA

Any previous edition of this text will suffice and can be used, but it is your responsibility
to know the differences in the chapter order, end of chapter questions, etc. These are
great texts and can be purchased online inexpensively.

Online course access: I will be posting “skeleton notes” and powerpoint slides using
SAKAI this semester. You can access this site by visiting “sakai.unc.edu” and logging in
with your ONYEN. If you are not a UNC student you will need to see me to make
arrangements to get access to this site. Please check this site daily.

Evaluation: Dates are subject to change at instructor’s discretion.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Date</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>TBA</td>
<td>(30%) *</td>
</tr>
<tr>
<td>Exam 2</td>
<td>TBA</td>
<td>(30%) *</td>
</tr>
<tr>
<td>Exam 3</td>
<td>TBA</td>
<td>(30%) *</td>
</tr>
<tr>
<td>Final Exam</td>
<td>See Registrar’s schedule</td>
<td>(40%)</td>
</tr>
</tbody>
</table>

*Your grade: All students must take the cumulative final exam. The final exam score
will count towards 40% of your final grade. I will drop your lowest grade for Exam 1, 2,
or 3, and the remaining two scores will each account for 30% of final grade. If you miss
a semester exam for any reason, I will drop that score and automatically use the
remaining two in the final grade calculation. Hence, there will be **no early or make-up exams**. You need to pass the final with a grade of 55% or higher to pass chem 430.

**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)

**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."

**Chem 430 Topics:** ***note: if you are using the 4th edition, consult one of my old syllabi for topics and chapters (online at: www.chem.unc.edu)**

**TOPIC**

- Biochem. Intro/ Water
- Amino Acids/Peptide bond
- Protein Architecture
- Protein purification
- Structure/function of proteins
- Enzymes: catalysis and kinetics
- Carbohydrates
- Lipids and membranes
- Metabolism – Glycolysis
- Glycogen metabolism
- TCA cycle
- Oxidative Phosphorylation
- Nucleic Acids
- DNA replication
- Transcription and Translation

**Note:** We will cover these topics in a much detail as possible. Be aware that I expect you to read the sections/chapters in your text that correspond to the material we cover in class. You will be held responsible for this material.