Chemistry 352  
Biochemistry II  
gelascop@cofc.edu  
Fall 2017  
MWF 10:00, SSMB 327  
Dr. Riggs-Gelasco  
324B SSMB, 953-7455  

Office Hours  
Monday, 2:00  
Thursday, 2:00  
or by appointment  

Topics:  
Intro to Metabolism, Chapter 10  
Glycolysis, Chapter 11  
Citric Acid Cycle, Chapter 13  
Oxidative Phosphorylation, Chapter 14  
Gluconeogenesis, Glycogen metabolism, Pentose Phosphate, Chapter 12  
Photosynthesis, Chapter 15  
Lipid Metabolism, Chapter 16  
Nitrogen/Amino Acid Metabolism/Urea Cycle, Chapter 17  
Nucleotide Biochemistry, Chapter 18  

Student Learning Outcomes:  
- Understand the chemical logic inherent in metabolism  
- Compare and contrast the types of organic reactions that facilitate the breakdown and biosynthesis of biological molecules  
- Evaluate how errors in metabolism lead to human disease  
- Recognize how metabolic pathways are regulated  

Student learning outcomes are assessed on in class exams, on homework assignments and on the final exam.  

Pre-requisite: Chem 351  

Grading:  
Four Exams worth 15% each  
Tentative Dates subject to change  
Friday, September 22  
Monday, October 20  
Wednesday, November 8  
Friday, December 1  
Two Quizzes each worth 2%  
Homework assignments are worth 14%; these are due the class prior to an exam  
Final Exam worth 22%, Friday December 8, 8:00-11:00  

Grades will be assigned according to the following MINIMUM scale  

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<thead>
<tr>
<th>Letter</th>
<th>%</th>
<th>GP</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>4.0</td>
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<tr>
<td>A-</td>
<td>90-92</td>
<td>3.7</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>3.3</td>
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<tr>
<td>B</td>
<td>83-86</td>
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<tr>
<td>B-</td>
<td>80-82</td>
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<tr>
<td>C+</td>
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<td>F</td>
<td>Below 60</td>
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**Final Exam**

Friday, December 8, This is a cumulative final for material in 352 only.

**Homework:**
There will be several homework assignments. The assignments will include end-of-chapter questions, literature assignments, and computer assignments. A homework assignment will be due the lecture period prior to each test. Late homework is penalized. The maximum grade you can receive on homework that is handed in late is the lowest score of the assignments that were passed in on time. You are allowed to discuss the homework with one another, but you are to write out the answers/calculations in your own words. Identically worded homework assignments are an indication of cheating (see below). Answers to the homework will be available for viewing in the main office.

Homework is to be typed, with the exception of mechanisms or calculations, which can be neatly printed. Homework answers are to be presented in numerical order. Homework pages should be stapled together. At this point in your chemistry careers, I expect you to be familiar with the superscript and subscript commands in your word processing program (for example, type H2O, not H2O).

**Attendance:**
Attendance at lectures is usually proportional to your grade. Some of the material covered in this course cannot be found in your book. We will not be following the order of the book. You will probably be confused as to what to focus on if you miss class. If you have to miss lecture, find another student in the class who will share their notes with you. You are responsible for obtaining the material and assignments you missed. Attendance at exams is mandatory. There are **NO** makeup exams. Exam dates are announced in advance. If you have an excused absence from the Dean of Undergraduate Studies for missing an exam for health reasons or for a family emergency, then you will be graded on your remaining scores. Missing more than one exam will be interpreted as excessive absence and you will be given a WA for the course.

**Academic Dishonesty:**
Cheating will not be tolerated in this course. The following description of cheating is from the student handbook:

“the actual giving or receiving of unauthorized, dishonest assistance that might give one student an unfair advantage over another in the performance of any assigned, graded academic work, inside or outside of the classroom, and by any means whatsoever, including but not limited to fraud, duress, deception, theft, talking, making signs, gestures, copying, electronic messaging, photography, unauthorized reuse of previously graded work, and unauthorized use or possession of study aids, memoranda, books, data, or other information. The term cheating includes engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.”
For this course, entering formulas into a calculator to be used during an exam will be considered as an act of premeditated cheating. Homework assignments that appear to be prepared as a joint effort will receive a joint grade (i.e. the points earned will be divided by two). The physical act of preparing your homework for submission should be done on your own.

**Disabilities:** If there is a student in this class who has a documented disability and has been approved to receive accommodations through SNAP Services, please feel free to come and discuss this with me during my office hours.