Biochemistry Laboratory CHEM 3820

Todd A. Wells  
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*Meeting time and location:* Tuesday and Thursday 1-4:50 pm, SGM 109  
*Office:* SGM 130 by appointment  
*TA:* Anastasiia Kostenko - Anastasiia.Kostenko@du.edu

**Course Goals:** This course is designed to provide students with the opportunity to learn and use biochemical techniques, to gain experience at writing scientific papers, and to demonstrate how effective scientific presentations are given. Independently driven research projects will be completed in the final 5 weeks.

**Required Materials:**
- Lab Notebook
- All other materials (handouts, lab manual) will be posted on Canvas.

**Grading:**

1) *Pre-labs* - There are 3 pre-labs due at the start of class. If they are not complete at 1pm, they are considered late and 5 points are deducted.

2) *Lab Reports* - There are 3 lab reports due. All reports must be written in the format of a journal article (Abstract, Introduction, Materials and Methods, Results and Discussion, Bibliography). You must write your lab report and analyze your data INDEPENDENTLY! If two reports are identical in any way, including the same figures, both get zeros. You must print the lab report. Do not submit it via email unless the TA approves this.

3) *Lab Participation* - Be involved in lab and clean up when you are done. Lab preparation is graded critically. Prior to coming to lab you need to do the pre-labs and watch the pre-lab lectures. Both will be posted on Canvas one week before they are due and pre-labs will be collected by me at the beginning of lab.

4) *Independent Projects*
   a) *Group Plan*  
   b) *Updates* - (individual grade)  
   c) *Report* - This is a journal style paper that should be written independently but using all of the group data. You should fully understand what other members did.

5) *Exam* - The exam will be given in Week 7 and covers the theory and application of protein purification, characterization and spectroscopy that will be covered in labs 1-4. The discussion questions, data analysis (including linear fitting of data), and journal articles posted on Canvas will be covered.

6) *Poster Presentation* - One formal group poster presentation over the projects will be done in March during finals week. Details will be given in class.

7) *Grading*

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<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Prelabs (3, 10 pts each)</td>
<td>30</td>
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<tr>
<td>Lab reports (3, 50 pts each)</td>
<td>150</td>
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<tr>
<td>Independent Project Report and Updates</td>
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<td>Poster Presentation</td>
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<td>Exam</td>
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<td><strong>TOTAL</strong></td>
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