CHEM 1250
GENERAL CHEMISTRY II LABORATORY
Winter, 2019

Instructor: Prof. Todd A. Wells
SGM 130
Email: towells@du.edu
Telephone: 1-2439

Mailboxes: Chemistry Department Office: Olin202, x1-2436

<table>
<thead>
<tr>
<th>Section</th>
<th>Room</th>
<th>Day</th>
<th>Time</th>
<th>T.A.</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Olin 222</td>
<td>Wed.</td>
<td>6:00 - 8:50 pm</td>
<td>Andres Sola</td>
<td><a href="mailto:Andres.Sola@du.edu">Andres.Sola@du.edu</a></td>
</tr>
<tr>
<td>2</td>
<td>Olin 222</td>
<td>Thur.</td>
<td>2:00 - 4:50 pm</td>
<td>Ana Franklin</td>
<td><a href="mailto:Ana.Franklin@du.edu">Ana.Franklin@du.edu</a></td>
</tr>
<tr>
<td>3</td>
<td>Olin 235</td>
<td>Tues.</td>
<td>2:00 - 4:50 pm</td>
<td>Tania Wyss</td>
<td><a href="mailto:Tania.Wyss@du.edu">Tania.Wyss@du.edu</a></td>
</tr>
<tr>
<td>4</td>
<td>Olin 222</td>
<td>Tues.</td>
<td>6:00 - 8:50 pm</td>
<td>Matthew Natale</td>
<td><a href="mailto:Matthew.Natale@du.edu">Matthew.Natale@du.edu</a></td>
</tr>
<tr>
<td>5</td>
<td>Olin 222</td>
<td>Tues.</td>
<td>2:00 - 4:50 pm</td>
<td>Brad Krzesinski</td>
<td><a href="mailto:Brad.Krzesinski@du.edu">Brad.Krzesinski@du.edu</a></td>
</tr>
<tr>
<td>6</td>
<td>Olin 222</td>
<td>Wed.</td>
<td>2:00 - 4:50 pm</td>
<td>Ana Franklin</td>
<td><a href="mailto:Ana.Franklin@du.edu">Ana.Franklin@du.edu</a></td>
</tr>
<tr>
<td>7</td>
<td>Olin 225</td>
<td>Tues.</td>
<td>6:00 - 8:50 pm</td>
<td>Brad Krzesinski</td>
<td><a href="mailto:Brad.Krzesinski@du.edu">Brad.Krzesinski@du.edu</a></td>
</tr>
<tr>
<td>8</td>
<td>Olin 235</td>
<td>Wed.</td>
<td>6:00 - 8:50 pm</td>
<td>Aigera Mendauletova</td>
<td><a href="mailto:Aigera.Mendauletova@du.edu">Aigera.Mendauletova@du.edu</a></td>
</tr>
<tr>
<td>9</td>
<td>Olin 225</td>
<td>Wed.</td>
<td>2:00 - 4:50 pm</td>
<td>Matthew Natale</td>
<td><a href="mailto:Matthew.Natale@du.edu">Matthew.Natale@du.edu</a></td>
</tr>
<tr>
<td>10</td>
<td>Olin 225</td>
<td>Tues.</td>
<td>2:00 - 4:50 pm</td>
<td>Andres Sola</td>
<td><a href="mailto:Andres.Sola@du.edu">Andres.Sola@du.edu</a></td>
</tr>
<tr>
<td>11</td>
<td>Olin 235</td>
<td>Thur.</td>
<td>2:00 - 4:50 pm</td>
<td>Tania Wyss</td>
<td><a href="mailto:Tania.Wyss@du.edu">Tania.Wyss@du.edu</a></td>
</tr>
<tr>
<td>12</td>
<td>Olin 235</td>
<td>Wed.</td>
<td>2:00 - 4:50 pm</td>
<td>Aigera Mendauletova</td>
<td><a href="mailto:Aigera.Mendauletova@du.edu">Aigera.Mendauletova@du.edu</a></td>
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</table>

- You are required to do **EVERY** lab, if you miss your section you must make it up in the same week the lab is offered.

- **No student** will be **allowed to begin** a lab if they arrive **more than 30 minutes late** for their scheduled lab time.

- **No student** will be **allowed to complete** a lab without following proper safety procedures including following safety protocol as it pertains to proper laboratory attire.

- If you cannot make your scheduled lab time you **MUST** get permission from your Teaching Assistant before changing.

- Reports are due one week from the scheduled finish of the experiment at the beginning of the next lab period. **Any assignment turned in 15 minutes after the start of lab is considered one day late. A penalty of 10% per day will be charged for late assignments. No assignment will be accepted after 4 days from original due date.**
Notebooks: You will be required to have a lab notebook they can be purchased at the DU bookstore. You must use a notebook that produces copies either carbonless or with carbon paper. This should be used to record your data and observations. While your notebook will not be graded, you must have your Teaching Assistant initial it at the conclusion of each lab exercise.

Grading:

<table>
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<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Pre-labs (20 pts each)</td>
<td>160</td>
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<tr>
<td>Quizzes (20 pts each)</td>
<td>120</td>
</tr>
<tr>
<td>Lab Worksheets (80 pts each)</td>
<td>400</td>
</tr>
<tr>
<td>Lab Reports (100 pts each)</td>
<td>400</td>
</tr>
<tr>
<td>Notebooks (5 pts each week)</td>
<td>40</td>
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<td><strong>Total</strong></td>
<td><strong>1120</strong></td>
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EXPERIMENT SCHEDULE (subject to change with appropriate notice)

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATES</th>
<th>EXPERIMENT</th>
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<tbody>
<tr>
<td>1</td>
<td>Jan. 7-9</td>
<td>Safety Lecture/ Check-in</td>
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<tr>
<td>2</td>
<td>Jan. 14-18</td>
<td>Thermodynamic (Enthalpy, entropy and Free Energy)</td>
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<tr>
<td>3</td>
<td>Jan. 21-25</td>
<td>Factors Affecting Reactions: Le Châtelier’s Principle</td>
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<td>4</td>
<td>Jan. 28-Feb. 1</td>
<td>Colorimetric determination of an Equilibrium Constant (Full lab report due for this experiment)</td>
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<tr>
<td>5</td>
<td>Feb. 4-Feb. 8</td>
<td>Standardization of Acids and Bases</td>
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<tr>
<td>6</td>
<td>Feb. 11-15</td>
<td>Weak acid titrations</td>
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<tr>
<td>7</td>
<td>Feb. 18-22</td>
<td>Solubility Product Constants (Full lab report due for this experiment)</td>
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<tr>
<td>8</td>
<td>Feb. 25-Mar. 1</td>
<td>Reaction Kinetics</td>
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<tr>
<td>9</td>
<td>Mar. 4-Mar. 8</td>
<td>Student Designed Experiment I (Full lab report due for this experiment)</td>
</tr>
<tr>
<td>10</td>
<td>Mar. 11-Mar. 15</td>
<td>Student Designed Experiment II (Full lab report due for this experiment)</td>
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