Organic Chemistry I Laboratory

Fall 2018


Instructors: Deemer, Khazeni, Mortazavi, Pardo

Please note that the scale of each experiment may be changed.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date (Note that our week begins on Tuesdays except for the last week!)</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1</td>
<td>August 28-September 3</td>
<td>No TAs-No Labs!</td>
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<td>2</td>
<td>September 4-10</td>
<td>Laboratory Safety</td>
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<td>3</td>
<td>September 11-17</td>
<td>Melting Points (8.4 A)</td>
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<td>4</td>
<td>September 18-24</td>
<td>Crystallization (8.4 B)</td>
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<td>5</td>
<td>September 25-October 1</td>
<td>Simple vs. Fractional Distillation (5.4 B)</td>
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<td>6</td>
<td>October 2-8</td>
<td>Extraction (9.7 D) and Sublimation (8.3)</td>
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<td>7</td>
<td>October 9-15</td>
<td>Chromatography (10.7 C)</td>
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<td>8</td>
<td>October 16-22</td>
<td>$S_N1$ Reaction (18.3 C)</td>
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<td>9</td>
<td>October 23-29</td>
<td>Chemical Kinetics (20.4)</td>
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<td>10</td>
<td>October 30-November 5</td>
<td>Synthesis of Aspirin (49.2 A)</td>
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<td>11</td>
<td>November 6-12</td>
<td>E1 Reaction (21.5 A) and Steam Distillation (7)</td>
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<td>12</td>
<td>November 13-19</td>
<td>Isopentyl Acetate (Modified 30.2.a)</td>
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<td>13</td>
<td>November 20-25</td>
<td>Holiday-No Labs</td>
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<td>14</td>
<td>November 26-December 1</td>
<td>IR (Read Chapter 13)-NMR (Read Chapter 15)</td>
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<td>15</td>
<td>December 3-8</td>
<td>Two lab reports are due but no labs because of Dead Day!</td>
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Required materials (You will be turned away and earn a zero in attendance for missing safety attire!):

1. The book
2. Goggles (not safety glasses) A seal should form around your eyes.
3. Pants (not shorts) Your legs must be covered.
4. Shoes (not sandals) Your feet must be completely covered.
5. A lab coat

What you should be learning:

1. Know the dangers of each laboratory including how to mitigate your risk.
2. Read and understand all the chapter and not just the experimental procedure.
3. Make sure that you can draw all structures and mechanisms for each lab.
4. Be able to apply a given mechanism to other reagents because we are not just cooks!
5. Understand which fundamental mechanism you are applying (Addition, Elimination or Substitution) including the stereochemical consequences.
6. Understand whether a reaction is an oxidation, reduction or not a net redox reaction.
7. Be able to calculate the yield of a reaction.
   1. structure to formula conversion,
   2. formula to molecular weight conversion,
   3. ml to grams via density and vice-versa,
   4. grams to moles,
   5. what is the limiting reagents,
   6. what is the stoichiometry of the reaction.
8. Understand why a particular procedure was followed.
9. Remember that this semester, this lab is your job.

Your grade will consist of:

1. 1/3 attendance. You must participate fully in the lab, and not come and go as you please!
2. 1/3 laboratory Quizzes. Quizzes will open the day before your lab day (one day).
3. 1/3 laboratory Reports. Reports will open the day after your lab day and will close the day before your next lab day (six days).

A > 89.5 %, B > 79.5 %, C > 69.5 %, D > 59.5 %
Instructor of Record:
Dr. Saideh Mortazavi (ssmortazavi@utep.edu)
Office: PSCI 308          Office Hour: Monday 11:30 am - 12:30 pm and by appointment

Teaching Assistant:
Qian Wang: qwang@miners.utep.edu
Office: CCSB G.0908A       Office Hour: Monday 11:30 am - 12:30 pm

Laura Saucedo: lisaucedo@miners.utep.edu
Office: PSCI 411B          Office Hour: Wednesday 12:00 noon - 1:00 pm

Tadeusz Nitka: ttnitka@miners.utep.edu
Office: CCSB 3.0714        Office Hour: Thursday 1:00 pm - 2:00 pm

Course Drop Deadline:
Nov 2, 2018. It is the student’s responsibility to officially withdraw from a course.

Attendance:
Students who miss a lab for an unexcused reason will lose 100% of the credit for that week.
However, for an excused absence proper medical documentation or university sanctioned event proof should be provided. Then, your TA may offer the makeup lab at another time he or she runs a lab or a section with another TA. Then, you will be responsible for the grading to be transferred to your section.

Pre-Lab Quizzes and Post-Lab Reports:
All students are expected to have read the information about each lab in the Wilcox/Wilcox textbook in advance, so you should be fully prepared for the weekly Pre-Lab Quizzes and Post-Lab Reports and for the laboratory activity of that day. On the first day you will be given access to your 2124 course moodle through http://organic.utep.edu/moodle to do your Pre-Lab Quizzes and Post-Lab Reports throughout the semester.
Use your email address (username@miners.utep.edu) and student ID to enter the first time; then you can change your password.

Pre-Lab Quizzes open at 12 am the day before the lab and close the midnight before your lab day. Post-Lab Reports open the midnight of the lab day and close the midnight before the next lab so that students concentrate only on the lab at hand. Therefore, students will have 24 hours to do a Pre-Lab Quiz and 6 x 24 hours to do a Post-Lab Report. If you miss a Pre-Lab Quiz or a Post-Lab Report, there is no way of making it up! Please keep in mind that this is the time to focus on earning a good grade by attending the labs, and doing the quizzes and reports ON TIME. At the end of the semester nothing can be done to improve your grade.