DEPARTMENT OF CHEMISTRY

CHEM 3110  (MM2) --- Spring 2016

Lecture:  Tuesday/Thursday -  8:00 am - 8:50 am, PCS 362
Lab:      Tuesday/Thursday -  9:00 am - 12:50 pm, PSC 357

Texts:    GSU CHEM 3110 Lab Manual (included in the price of supply card).
          Experimental Organic Chemistry, by Wilcox and Wilcox.

Instructor:  Dr. Joan Mutanyatta-Comar (e-mail: jmutanyattacomar@gsu.edu)
Office:     PSC 381; Tel.# 404-413-6544
Office hours: MW: 9:00 am -11:00 am. Any other time by appointment.

Grading Scheme:
Final Exam*  100 pts
Final Report* 100 pts
Homework, Notebook, quizzes, prepn.*,** 100 pts
Total Pts 300

Tentative Letter Grades:
A+ = 96%
A  = 90%
A- = 87%
B+ = 84%
B  = 80%
B- = 77%
C+ = 73%
C  = 70%
C- = 66% etc.

*Must be submitted to receive a passing grade
**Notebooks must be picked up within TWO weeks after final grade deadline (after
which time they will be discarded)

Impt. Dates:
Mar. 1st  Lab begins
Mar. 14th - 20th  Spring Break
Mar. 25th  Last day to withdraw with grade “W”
Apr. 19th  Last day of lab, checkout
Apr. 19th  Final Exam (8:00 am - 10:00 am), submission of final report and
notebook.
NOTES:

1. Attendance to lecture and lab will be recorded (sign-in/out of lab required). Absences can result in loss of points and lower grades.

2. Bound Lab notebooks are required the first day of lab. All entries MUST be made in ink at the time the experiment is being carried out. Notebooks must be submitted with the Final Report.

3. Safety glasses/goggles: These may be purchased at the GSU bookstore, the Georgia Bookstore, and most hardware stores. Students who are unable or forget to bring their glasses may buy a pair from the Lab Coordinator by filling out a breakage form in the lab. Students who obtain glasses in this manner will pay for them at the time they check-out of the lab. Safety glasses/goggles must be worn at all times. Students will not be allowed into the lab without their glasses/goggles.

4. Students must bring safety glasses/goggles and closed toe shoes on the first day as synthesis will begin immediately after check-in.

5. Failure to follow safety procedures will result in expulsion from that lab session with no make-up allowed and loss of credit.

6. No make-up for Final Exam

Chemistry Departments Student Integrity Policy:
The Department of Chemistry follows the University policy on academic honesty published in the “Faculty Affairs Handbook” and the “On Campus: The Undergraduate Co-Curricular Affairs Handbook”. All tests taken must represent the student’s individual, unaided effort. Any suspected offense may be referred to the Department’s Chairman for appropriate action.

All tests taken must represent your individual, unaided efforts. To receive or offer information during any examination is cheating. The use of unauthorized supplementary materials during tests is also cheating. All laboratory work performed during this course must reflect your individual effort. Only original data obtained by your own laboratory experimentation are permitted to be used, except when specifically authorized by your laboratory professor. Data from supplementary sources (handbooks, reference literature, etc) must be clearly referenced (title, author, volume, page(s), etc). Falsification or destruction of data constitutes cheating.

POLICY FOR WORKING IN THE LABORATORY:
Students in 3110 lab classes have permission to be in the laboratory other than their regularly scheduled lab period only when the lab is officially open and only to perform IR or Melting Point Determinations. No experiments are to be done outside of the scheduled lab time. Experiments which require over-night heating may be turned off, allowed to cool and then secured [work-up (lab work) will not be allowed].
## Laboratory Schedule

<table>
<thead>
<tr>
<th>Lecture &amp; Lab Dates</th>
<th>Tentative Lecture Emphasis (labwork)</th>
<th>Reading Assignments (Read before lecture)</th>
<th>pp. Wilcox &amp; Wilcox</th>
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<tbody>
<tr>
<td><strong>March 1</strong></td>
<td>Safety Video, Objectives of course (check-in; begin lab = chalcone preparation)</td>
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<td>3-24</td>
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<tr>
<td><strong>March 3</strong></td>
<td>Safety Exam, Recrystallization of chalcone, purity (m.p), Yield, Lit. Search</td>
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<td>84-102 and lab manual</td>
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<td><strong>March 8</strong></td>
<td>Overview of synthetic routes (Epoxide and/or dibromide preparation)</td>
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<td><strong>March 10</strong></td>
<td><strong>Quiz 1.</strong> Overview continued; structure proof (Epoxide and/or dibromide preparation)</td>
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<td>234-253 (IR)</td>
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<tr>
<td><strong>March 22</strong></td>
<td>Structure proof continued (Isxazole preparation)</td>
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<td>263-288 (NMR)</td>
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<td><strong>March 24</strong></td>
<td><strong>Quiz 2.</strong> UV Spectroscopy (Complete preparations and purifications)</td>
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<td>254-262</td>
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<td><strong>March 29</strong></td>
<td>UV Spectroscopy continued; Optional procedures (Begin optional procedures)</td>
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<td><strong>March 31</strong></td>
<td><strong>Quiz 3:</strong> Optional procedures continued</td>
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<td><strong>April 5</strong></td>
<td>$^{13}$C NMR (Synthesis of optional compounds continued)</td>
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<td>263-288</td>
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<td><strong>April 7</strong></td>
<td><strong>Quiz 4.</strong> $^{13}$C NMR continued (Synthesis of optional compounds continued)</td>
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<td><strong>April 12</strong></td>
<td>Synthesis of optional compounds continued</td>
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<td><strong>April 14</strong></td>
<td><strong>Quiz 5:</strong> Format of Final Report; Format of Final Exam; (Clean -up, check-out)</td>
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<td><strong>April 19</strong></td>
<td><strong>Final Exam</strong> Submit Final Report and Notebook</td>
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*Deviations from this syllabus may be required.*