

# CHEM 3110 Lab II Syllabus (CRN 93168 & 83853) Online Fall 2020

---

<b>Instructor:</b>	Dr. Jianmei Cui
<b>E-mail:</b>	<a href="mailto:jcui@gsu.edu">jcui@gsu.edu</a>
<b>Class Meeting Time:</b>	Tuesday/Thursday 10-11am via Webex, it's not mandatory but recommended
<b>Office Hours:</b>	Via Webex, Email me at <a href="mailto:jcui@gsu.edu">jcui@gsu.edu</a> for appointment
<b>Required Texts:</b>	Organic Chemistry by John E. McMurry, 9 <sup>th</sup> Edition
<b>Optional Texts:</b>	Experimental Organic Chemistry by Wilcox and Wilcox, 2 <sup>nd</sup> edition

---

## Important Dates:

Aug. 24 <sup>th</sup> – Aug. 30 <sup>th</sup>	Week of Classes begin
Sep. 11 <sup>th</sup>	Last day to withdraw with grade "W"
Oct. 6 <sup>th</sup> – Oct. 9 <sup>th</sup>	Final Exam

## Course Overview:

This course CHEM 3110 is designed to introduce students to organic synthesis, including design, synthesis and identification of target compounds. During the process, students will learn chemistry lab techniques, including synthesis, tool, purification and identification chemical structure characteristics by using IR, melting point apparatuses, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR and literature search. Students will also gain the experience of scientific report on lab work learned through the course. This course will be learned through Labflow and iCollege, more information will be posted on iCollege, including how to set up your labflow account at no cost to you.

## Course Organization and Structure:

1. This course will be administrated through Labflow ([www.labflow.com](http://www.labflow.com)), including 10 lab modules. Also, I will post some information on iCollege including videos, announcement and office hours.
2. Students will be responsible for the timely completion of all assignment. We will have weekly assignments including videos, prelab quizzes and lab reports.
3. Each lab module will have scheduled open/close time for lab report/quiz and each module will take several hours to finish, please plan according your time and make sure you can finish on time. Email me during weekday for fast reply, I may not check/reply email during weekend.
4. For each lab from labflow, please:
  - Read background information and procedure
  - Watch videos
  - Finish pre-lab questions and take the pre-lab quiz
  - Complete lab report and post-lab questions

## Grading:

*Below is a breakdown of points for each assessment activity in each module (except modules 1&2)*

Pre-lab Questions	= 10 points
Pre-lab Quiz	= 10 points
Lab Report + Post-lab Questions	= 80 points
Total Points	= 100 points

*The overall total points for each module are indicated below:*

<b>Module #</b>	<b>lab contents</b>	<b>Points</b>
1	Lab Safety Review	35
2	Melting Points Experiment	65
3	Grignard Reaction: Synthesis of Benzoic Acid	100
4	Diels-alder Reaction	100
5	Nucleophilic Aromatic Substitution Reaction	100
6	Hydration of 1-Hexene	100
7	Reducing Benzil	100
8	Synthesis of Aspirin	100
9	NMR Experiment	100
10	FINAL EXAM	100
<b>Total Points</b>		<b>900</b>

A+: 96%, A: 92%; A-: 89%; B+: 86%; B: 82%; B-: 78%; C+: 76%; C: 72%; C-: 68%; D-: 60%; F < 60%.

### **Miscellaneous:**

1. Department of Chemistry Statement on Student Integrity applies to this course (see below).
2. **Course Learning Suggestions:** Starting assignments early so that you have time to study and discuss your questions with instructor, please do not wait until the last minutes; pay attention to any announcement made on iCollege in case you miss out important requirement;
3. **Make-up/Absence Policy:** It is the student's responsibility to finish all assignment on time, you have 4 days to finish each assignment. However, please do not try to finish your assignment at the last minutes, you may be out of time and lose points. Remember that there will be no make-up given. If a student is unable to finish due to extenuating circumstances, such as a family emergency, illness, or injury, then possible time extension may be offered to the student at the instructor's discretion, please email me as soon as possible.
4. **Disability Services:** Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought.
5. **Grading Policy:** Please bring to my attention any discrepancies or an issue within one week after your grade is posted. No change will be made after this period.

### **Department of Chemistry Policy Statement Regarding Student Integrity:**

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." Any suspected offenses may be referred to the Department Chair for appropriate action. All tests taken must represent your individual, unaided efforts. To receive or offer information during an 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 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.

**Tentative schedule:**

*Changes and deviations from this syllabus may come and will be announced on iCollege.*

Module #	Starting Time and Date	Ending Time and Date	Labflow Assignments and Organic Chemistry by McMurry Chapter #
1	7:00 am 08/25	11:59 pm 08/29	<ul style="list-style-type: none"> <li>• Introduction: Overview (iCollege)</li> <li>• Lab Safety (www.Labflow.com)</li> </ul>
2	7:00 am 08/30	11:59 pm 09/02	<ul style="list-style-type: none"> <li>• Melting Point of Compounds and Mixtures</li> </ul>
3	7:00 am 09/02	11:59 pm 09/05	<ul style="list-style-type: none"> <li>• Grignard Reaction - 19.7 &amp; 20.5</li> </ul>
4	7:00 am 09/06	11:59 pm 09/09	<ul style="list-style-type: none"> <li>• Diels-Alder Reaction - 14.4 &amp; 14.5</li> <li>•</li> </ul>
5	7:00 am 09/09	11:59 pm 09/12	<ul style="list-style-type: none"> <li>• Nucleophilic Aromatic Substitution - 16.6</li> </ul>
<b>09/11/20</b>			<b>Last day to withdraw and receive a W</b>
6	7:00 am 09/13	11:59 pm 09/16	<ul style="list-style-type: none"> <li>• Hydration of 1-Hexene - 8.4</li> <li>•</li> </ul>
7	7:00 am 09/16	11:59 pm 09/19	<ul style="list-style-type: none"> <li>• Reducing Benzil - 5.1, 5.6, 5.7, 19.7</li> </ul>
8	7:00 am 09/20	11:59 pm 09/23	<ul style="list-style-type: none"> <li>• Synthesis of Aspirin - 21.5</li> </ul>
9	7:00 am 09/23	11:59 pm 09/26	<ul style="list-style-type: none"> <li>• NMR Experiment</li> <li>• Video Lecture and Problems on NMR (iCollege) - 13</li> </ul>
10	7:00 am 09/27	11:59 pm 10/6	<ul style="list-style-type: none"> <li>• Review all iCollege and labflow contents to prepare for final exam</li> </ul>
11	7:00 am 10/06	11:59 pm 10/9	<ul style="list-style-type: none"> <li>• Final Exam on iCollege</li> </ul>