

DEPARTMENT OF CHEMISTRY

Chemistry 3110 CRN # 50068 ---Practical Organic Chemistry- Online

Summer Semester: 2020

Lecture: Required lecture Videos will be posted to iCollege via Kaltura.

Lab: All labs will be accessed through **Labflow (www.labflow.com)**

Texts: The chapters referenced in the schedule below are from the, Organic Chemistry by John McMurry – 9th edition.

Instructor: Keith O Pascoe

E-mail: Chekop@gsu.edu - Please allow 24hrs for responses to email.

Office hours: To be arranged via WebEx – see posted times.

Grading Scheme: Please see requirements

Letter Grades:

A+	= >95%
A	= 90% - 94%
A-	= 86% - 89%
B+	= 82% - 85%
B	= 78% - 81%
B-	= 74% - 77%
C+	= 70% - 73%
C	= 66% - 69%
C-	= 62% - 65%
D	= 54% - 61%
F	= < 54

Course Description:

This is a first semester organic chemistry lab which will introduce the student to techniques and instruments commonly used in an organic chemistry lab. This course will be administered through **Labflow** in which you will watch videos of labs and concepts and then answer follow up questions. Additional information will be on **iCollege**. You will receive instruction on **iCollege** on how to set up your **Labflow** account **at no cost to you**.

Important Dates:

Jun.	8 th	Classes begin
Jul.	6th	Last day to withdraw with grade “W”
Jul.	4th	Independence Day Holiday.
Jul.	26 th	Last day of lab.

Class Preparation and attendance:

There is no lab make ups, you are given seven days to complete each lab module and you are expected to finish the module in that time. It is very important that you do the experiments promptly and not wait until the last moment. If a situation arises in which you are unable to finish a module on time please send me an email and I may consider granting an extension.

Below is a tentative schedule for the course. Changes may be necessary and will be announced in **iCollege**.

Teaching Schedule:

Module 1: (June 8-June 14) Monday 7:00 am to Sunday 11:59 pm

- **Overview Video Lecture - on iCollege.**
- Organic Lab Safety Review (Labflow.com)- 35 points
- Melting point of compounds and mixtures (Labflow.com)- 65 points

Module 2: (June 8-June 14) Monday 7:00 am to Sunday 11:59 pm

Grignard Reaction - Synthesis of Benzoic Acid - Chapters 19.7 & 20.5

- ❖ Read the background information about the reaction
- ❖ Read the procedure for the reaction
- ❖ Pre-lab lecture (on iCollege)
- ❖ Watch video on recrystallization
- ❖ Do pre-lab questions
- ❖ Take the pre-lab quiz
- ❖ Complete lab report + post lab questions

Module 3: (June 15-June 21) Monday 7:00 am to Sunday 11:59 pm

Diels-Alder Reaction - Chapter 14.4 & 14.5

- Pre-lab lecture (on iCollege)
- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Watch video on vacuum filtration
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz – complete Lab report and post lab questions.

Module 4: (June 15-June 21) Monday 7:00 am -Sunday 11:59 pm

Nucleophilic Aromatic Substitution Reaction - Chapter 16.6

- Pre-lab lecture (on iCollege)
- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz
 - ❖ Complete lab report + post-lab questions

Module 5: (June 22-June 28) Monday 7:00 am to Sunday 11:59 pm

Hydration of 1-hexene - Chapter 8.4

- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz
 - ❖ **Complete lab report + post-lab questions**

Module 6: (June 22-June 28) Monday 7:00 am to Sunday 11:59 pm

Hydroboration of 1-hexene - Chapter 8.5

- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz
 - ❖ Complete lab report + post-lab questions

Module 7: (June 29-July 5) Monday 7:00 am to Sunday 11:59 pm

Reduction of Benzil - Chapters 5.1, 5.6, 5.7, 19.7

- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Pre-lab lecture
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz
 - ❖ Complete lab report + post-lab questions

Module 8: (July 6-July12) Monday 7:00 am to Sunday 11:59 pm

Williamson Ether Synthesis - Chapter 18.2

- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Do pre-lab questions
 - ❖ Take the pre-lab quiz – complete lab report + post lab questions.

Module 9: (July 6-July 12) Monday 7:00 am to Sunday 11:59 pm

Synthesis of Aspirin - Chapter 21.5

- Experiment (Labflow)
 - ❖ Read the background information about the reaction
 - ❖ Read the procedure for the reaction
 - ❖ Watch Videos: running a TLC and performing vacuum filtration
 - ❖ Take the pre-lab quiz
 - ❖ **Complete lab report**

Module 10: (July 13-July 23) Monday 7:00 am to Thursday 11:59 pm

Pre-lab lecture on NMR on iCollege - Reference: Chapter 13

- Practice questions (on iCollege)

Module 11: (July 13-July 23) Monday 7:00 am to Thursday 11:59 pm

NMR Experiment (Labflow)

- ❖ Read the background information about NMR
- ❖ Read the procedure
- ❖ Watch a video: Interpreting proton NMR spectrum
- ❖ Do pre-lab questions
- ❖ Take the pre-lab quiz
- ❖ Complete lab report + post-lab questions

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.

Accommodations

Students who wish to request accommodation for a disability may do so by registering with the Access and Accommodation Center. Students may only be accommodated upon issuance by the Access and Accommodation Center 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.

Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take time to fill out the online course evaluation.

The University requires that faculty members must, on a date after the mid-point of the course to be set by the Provost (or his designee)

1. Give a **WF** to all students who are on their rolls but are no longer taking the class and
2. report the last day the student attended or turned in an assignment.

Students who are withdrawn may petition the Departmental Chair for reinstatement into their classes.

***Deviations from this syllabus may be required.**