

## **CHEM 2410 (Organic Chemistry II)**

Course Syllabus - Spring 2020

Department of Chemistry

Georgia State University

*Prerequisite: Organic Chemistry 1 (CHEM 2400) with a grade of "C" or higher.*

**Instructor:** Dr. Nilmi T. Fernando

**Office:** 832 Langdale Hall

**Lecture:** MWF 2:00-2:50 pm in Library South 102

**Text:** "Organic Chemistry", 9th Edition, by John McMurry.

**Office Hours:** MWF 10:00 am – 12:00 pm

**Email:** [nfernando1@gsu.edu](mailto:nfernando1@gsu.edu). Send emails from **your GSU** email account **only**.

Put 'CHEM 2410' in the subject line.

**Required Texts:** 1. "Organic Chemistry", 9<sup>th</sup> Edition, by John McMurry. Chapters 13-24 will be covered at a rate of approximately one chapter per week.

2. Preparing for Your ACS Examination in Organic Chemistry: The Official Guide, ISBN 0-9708042-1-0. Purchase from GSU bookstore or online or Chem club (Langdale Hall, office #832)

**Optional Texts:** 1. Organic Chemistry I & II: A Student Workbook", ISBN # 978-0-7575-8271-4, by Keith O. Pascoe

2. Organic Chemistry II as a Second Language, second semester topics, 4E, by David Klein ISBN 978-1-119-11065-1

**The foregoing provides a general plan for the course, deviations from which may be necessary. The instructor will announce any such changes in class.**

**\*Students who wish to request accommodation may do so by registering with the GSU Access and Accommodation Center. Students may only be accommodated upon issuance of a signed Accommodation Plan by ACCESS and are responsible for providing a copy of that plan to the instructors well in advance.**

### **Use of Class Materials**

The materials used in this class, including, but not limited to, exams, quizzes, and homework assignments are copyright protected work. Any unauthorized copying of the class materials is a violation of federal law and may result in disciplinary actions being taken against the student. Additionally, sharing of class materials without the approval of the instructor, uploading class materials to websites including lecture recordings for sharing with other current or future students may be a violation of the University's Student Honor Code and an act of academic dishonesty, which could result in further disciplinary action.

Week	Week of....	M	W	F
1	January 13	First Lecture	Lecture	Lecture
2	January 20	<b>MLK Holiday</b>	Lecture	Lecture
3	January 27	Lecture	Lecture	Lecture
4	February 3	<b>Exam 1</b>	Lecture	Lecture
5	February 10	Lecture	Lecture	Lecture
6	February 17	Lecture	Lecture	Lecture
7	February 24	Lecture	Lecture	<b>Exam 2</b>
8	March 2	Lecture	Lecture	Lecture
9	March 9	Lecture	Lecture	Lecture
10	March 16	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
11	March 23	Lecture	Lecture	Lecture
12	March 30	<b>Exam 3</b>	Lecture	Lecture
13	April 6	Lecture	Lecture	Lecture
14	April 13	Lecture	Lecture	Lecture
15	April 20	Lecture	Lecture	<b>Exam 4</b>
16	April 27	Last Lecture		

**Final Exam: Friday May 1<sup>st</sup> 1:30 – 3:20 pm (1 h 50 min.) in Library South 102**

**Semester Midpoint: March 3<sup>rd</sup> 2020.**

Important Dates: Mar. 3<sup>rd</sup> **Last day to withdraw with grade “W”**  
 May 1<sup>st</sup> **Final Exam: Friday, (1:30 - 3:20 pm, 1 hr 50 min.),  
 Library South 102**

**List of topics covered in CHEM 2410 (John McMurry, 9<sup>th</sup> edition)**

1. Chapter 13: Structure Determination: Nuclear Magnetic Resonance Spectroscopy
2. Chapter 14: Conjugated Compounds, Ultraviolet Spectroscopy
3. Chapter 15: Benzene and Aromaticity
4. Chapter 16: Chemistry of Benzene: Electrophilic Aromatic Substitution
5. Chapter 17: Alcohols and Phenols
6. Chapter 18: Ethers and Epoxides; Thiols and Sulfides
7. Chapter 19: Aldehydes and Ketones: Nucleophilic Addition Reactions
8. Chapter 20: Carboxylic Acids and Nitriles
9. Chapter 21: Carboxylic Acid Derivatives: Nucleophilic Acyl Substitution Reactions
10. Chapter 22: Carbonyl Alpha-Substitution Reactions
11. Chapter 23: Carbonyl Condensation Reactions
12. Chapter 24: Amines and Heterocycles

**Sequence of chapters: 17-23, followed by 13-16 then 24.**

**Grading Scheme:** If all 4 in-class exams are taken, the higher 3 will contribute to 65% of the final grade. NO make up, early or late exams given for any reason at all. All missed exams will count as zero. Out of 11 online quizzes, the higher 10 will contribute to 10% of the final grade. Homework will contribute to 5% of the grade. There will be a **final ACS exam**, which will count for **20%** of the final grade. The final ACS exam consists of material covered in both organic I & II.

**To receive a passing grade in this course, students MUST**

- 1) take all required exams
- 1) take the final ACS examination

**Note\*\*\***The professor reserves the right to move ANYONE during the examination for ANY REASON without explanation. If you are asked to relocate gather your test and move to the newly assigned seat.

**HW:** Graded HW will be returned to students. If you are not present to pick up the HW you will not be able to complete the assignment.

**Understand that the only way to master the material in this course IS TO PRACTICE.**

**Letter Grades:**

A+	=	>95%
A	=	90%
A-	=	87%
B+	=	84%
B	=	80%
B-	=	77%
C+	=	74%
C	=	70%
C-	=	67%
D	=	60%
F	=	< 60%

**Note:** CHEM 2410 is a prerequisite for Biochemistry. A grade of "C" or higher in CHEM 2410 is required for registration into Biochemistry (CHEM4600).

**Attendance:** Students are expected to attend all lecture classes, responsible for all assignments and materials presented, required to take all quizzes, in-class exams and the final exam. In the event of unavoidable absences, it is the responsibility of the student to find out what materials were covered or what assignments made in his or her absence.

**Note:** Sometime after the mid-point of each course (an exact date will be set by the Provost or his designee), the University now requires faculty members to: 1) Give a WF to any student who is on the course roll but no longer attending class and 2) Report the last day the student attended class or turned in an assignment. Students who are withdrawn may petition the Departmental Chair for reinstatement into their classes. Students who withdraw themselves by the mid-point of the course will receive a W under this policy.

**Preparation:** Students are responsible for class preparation and for any material presented in the course of the lectures *whether or not it is contained in the textbook*. Chemistry is a *highly* structured course, with each new topic based on others previously developed. Therefore, it is *critical* for students to keep *consistently* updated in their readings and assignments. To fall even one class period behind is to risk considerable difficulty in mastery of future material. Students should,

- 1) review previous material, especially if it was not perfectly understood
- 2) complete reading assignments *before* the lecture in which the topics are covered, or at least immediately after the lecture
- 3) complete assigned problems and exercises on time, with an emphasis on mastery of concepts and principles involved rather than looking for a formula that will give the expected answer (*remember that the question can be asked in a different way and not just with different numbers!*)

**If you have concerns regarding the grade assigned to your exams you must submit your answer sheet for re-grading along with a written explanation of the concern. This submission must be made within one week of the date the exam was returned.**

**Some** Examples of Unacceptable Student Conduct:

- Not following the testing procedures as instructed.
- Talking while your professor is lecturing.
- Arguing with the professor about student conduct.
- Not sitting up straight with paper directly in front of you during an exam.
- Not keeping your scantron or exam papers covered during an exam.
- Using a disrespectful tone of voice, harsh words or profanity.
- Making inappropriate gestures of any kind.
- Leaving class before the lecture is over.
- Letting your cell phone ring audibly during a lecture or exam.
- Having a cell phone available during a quiz or test.
- Not having your student ID for a quiz or test.
- Arriving late for lecture or for an exam.
- Allowing your laboratory data or answers to be copied.

Cell Phones: **ALL CELL PHONES MUST BE SET TO OFF DURING AN EXAM. NOT SILENT BUT OFF.** In case of an Emergency where you would need you phone on during an exam you must clear that with me prior to the start of the exam.

**Chemistry Department Policy on Student Conduct and Integrity:** The *Georgia State University Policy on Academic Honesty* is in force in this course. This includes but is not limited to infractions in the area of *plagiarism, cheating on examinations, unauthorized collaborations, falsification, and multiple submissions*. This policy is published in *On Campus: The Student Handbook*, which is available to all members of the university community.

All examinations must represent your individual effort, with no unauthorized aid. To either *give or receive* unauthorized information during an examination is cheating, as is the use of *any* unauthorized supplementary material. Falsification or destruction of data constitutes cheating as well. Conduct disruptive of class, examinations, *or* falsification or destruction of information related to chemistry courses will be taken as a violation of the policies of the Board of Regents of the University System of Georgia and the Georgia State University Student Code of Conduct, Section 6.0. Any suspected offenses may be referred to the Chairman of the Department or the Dean of Students for appropriate disciplinary action.

**\*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.**