

Chemistry Department **As on January 4/2017 If changes are needed, changes will be made.**

CHEM 3400- Intermediate Organic Chemistry-Syllabus- Spring 2017 CRN: 21371-Lecture:

Langdale Hall 500 MWF 10:00-10:50am

Prerequisite: Successful completion of Chemistry 2400 and 2410

Textbook: Organic Chemistry by John McMurry 8th edition or whichever student has used in CHEM2400/2410.

Instructor: Dr. Angela Maria Navarro-Eisenstein **Office:** 434-C-Kell Hall, **Phone:** (404)-413-5541

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When sending an e-mail to Dr. Navarro-Eisenstein, **under the subject heading**, please state in which class you are enrolled.

(CHEM 3400) It is important you email to anavarro@gsu.edu from your GSU account to receive a prompt response. **I only reply emails from Icollege when I access the platform to enter grades.** Please, do not e-mail through Gmail, Hotmail, etc

Office Hours: 434-C KELL HALL "First come first serves", Tuesdays, Wednesdays, and Thursdays 1:00-pm -2:00 pm; or by appointment.

Grades Cut Off:

A+*: 96 % A*: 90%; A-: 87%; B+: 84% B: 80% B-: 77%, C+: 74% C: 70% C-: 67%, D= 64-66%, F= below 64%

250 points Best 5 tests @ 50 each

50 points 5 quizzes @ 10 each

100 points Final exam

Total 400 points

- **Preparation for the course:** Read the chapter to be discussed before you come to lecture. Work the problems within the chapter, as they bring step by step how to arrive to the answers. **Planning ahead is a key to success. Your performance in science is a lot better when you study daily.** As you read the material, you take written notes and **underline**. Use **highlighters** or color pens. That will help you throughout the semester and to study for the final. Exams are closed book.
- **The schedule in the last pages is only tentative subject to changes if needed.**
- Students are required to check announcements of changes in Icollege (if any) and to attend to lecture as this is only a general plan for the course; deviations may be necessary. In the event of cancelation due to storms an updated schedule of assessments will be posted.
- Make-ups: There is no chance for make ups due to time constraint. Plan accordingly.
- Academic Honesty: The honor code embraced by universities expresses an ideal of character, conduct, and citizenship. This applies especially to academic honesty and integrity. Passing off someone else's work as your own represents intellectual fraud and theft, and violates the core values of academic community. You will be asked to sign up the honor code in bold as written beneath, along with your printed name on the first page of assessments. **"As a member of the student body taking this course, I consider myself bound, guaranteed and compelled by honor to develop and uphold high standards of honesty and behavior."**
- Class Preparation: Suggested reading assignments should be completed before the next lecture.
- Attendance: Students are expected to attend all lectures. As a courtesy to your fellow students, please arrive on time and do not leave during the lecture. **Please bring me a schedule of your RELIGIOUS HOLIDAYS OBSERVANCE the SECOND WEEK of class.**
- **Disabilities: 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- students are responsible for providing a copy of accommodations plan to instructors of all classes in which an accommodation is sought. This is to be discussed in the office and never at the beginning or end of class.
- 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): A) **Give a WF** to all those students who are on their rolls but no longer taking the class and B) **Report the last day** the student attended or turned in an assignment.
- Students need to **show their GSU Panther ID card when taking any test, quiz or exam.** All tests/exams are taken in class. The basic ideas and principles on these exams come from the book and lecture material and are designed to

test a student's 1) understanding of the concepts and 2) ability to solve problems, as well as 3) knowledge of the facts.

- Research shows that the more **different ways** you present information to the brain the easier it is to learn. In other words **hear it, see it, say it, write it, practice it, highlight it, quiz it**, etc.
- The lecture professor may retain copies of students' homework, quizzes or tests. Students are responsible for keeping all tests and other papers until after they have received their final grade for this course.
- **Believe you can succeed.** Be willing to pay the price. **Accept responsibility for your learning!** It is your choice. I could be the best teacher in the world but your performance depends only on the time and effort you invest in this course. Chemistry is a highly structured subject in which each new topic is based on others previously discussed. Therefore, if one topic is not mastered, it becomes *increasingly* difficult to master those that follow. **Attend all classes!** The quizzes and exams are based mostly on material that is covered in class. You must be present to know what is going on.
- The Instructor reserves the right to move students during the tests. During all exams, sit up straight and keep your paper directly in front of you and out of sight from other students.
- Before an exam is given to the students, there should be nothing on your desk except pencils, erasers, a scantron (if necessary), and ID (scratch paper will be provided if necessary). Students are required to show (and leave) their student identification on the desk in order to take the test.
- You **cannot use your cell phone as a calculator or as a watch**. If you need to be on-call during an exam, you can turn your cell phone to "vibrate" and leave it up front with the instructor.
- Use the restroom and complete any other personal business before coming to an exam. Bring tissues in case you need them. Students may leave the room only after their exam has been turned in. Leaving the room during any testing procedure will result in a score of zero for the exam.
- Students arriving late to exams will not have any additional time.
- **Cancellation of Classes:** Official closure of the university is determined by the university administration. This sometimes occurs due to inclement weather, in which case notification will be made through local radio and television outlets.
- **Each student has the responsibility of checking their email and iCollege on a daily basis.**
- **Classroom etiquette:** Please do not reserve a seat for your friends coming late. Please **refrain from chit-chatting** during class as it distracts not only the students who sit around you but also the instructor. Disruptive conduct during class will not be tolerated and **appropriate action will be taken against you** (refer to your copy of the Student Conduct Code).
- **Cheating:** 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. A student who cheats on an exam will receive **a zero for that exam which cannot be dropped as the lowest grade**. Any suspected offenses may also be referred to the Department Chairman and/or the Dean of Students for appropriated disciplinary action. 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."

Georgia State University Student Conduct and Integrity Policy: *The Georgia State University Policy on Academic Honesty* is applicable to this course, including but not necessarily limited to infractions in the areas of **plagiarism, cheating on examinations, unauthorized collaboration, falsification, and multiple submissions**. This policy is published in *On Campus: the Student Handbook*, available to all members of the university community.

Some Examples of Unacceptable Student Conduct:

- ✓ Leaving class before the lecture is over
- ✓ Leaving class after taking a quiz or turning a homework
- ✓ Talking while your professor is lecturing distracting your fellow classmates
- ✓ Arguing with the professor about student conduct
- ✓ No following the testing procedures as listed in this syllabus
- ✓ No sitting up straight with paper directly in front of you during a quiz or exam or no keeping scantron covered
- ✓ No having your student ID for a quiz or test
- ✓ Letting your cell phone ring audibly during a lecture or exam or having a cell phone available during a quiz or test
- ✓ Using a disrespectful tone of voice, harsh words
- ✓ Using profanity or making inappropriate gestures of any kind

Date	Tentative Topic and Reading assignment before each lecture
<u>Monday 1/9</u>	Syllabus -overview of carbonyl – Nu:- additions, acyl substitution, α -substitution and condensation. Aldehyde-ketones Nu:- additions Oxidation-reduction Preparation (17.7 and 19.2) and reduction, (17.4, 19.7) (19.3) Grignard
Wednesday 1/11	Aldehyde-ketones/Nu:- additions Oxidation-reduction Preparation 17.7 and 19.2) and reduction,(17.4, 19.7 (19.3)Grignard,(17.5, 19.7) hydration (H+, OH-)(19.5), Ald-ket/ (19.8) Nu:- addition RNH ₂ (imines), R ₂ NH (enamines),
Friday 1/13	Ald-ket/ (19.8) Nu:- addition RNH ₂ (imines), R ₂ NH (enamines), (19.9) hydrazine, Deoxygenation Wolff-Kishner (19.10) Aldehyde-ketones/ acetals –9.11-coenzyme NAD+/ NADH- reducing agent
<u>Monday 1/16</u>	MLK- no class
Wednesday 1/18	19.13- enolate- 1,2 vs-1,4 addition α,β -unsaturated ald-ketones Quiz 1 (10 points) (Chapt. 20)Carboxylic acids- nitriles- esters amides overview
Friday 1/20	Chapter 21 / acyl substitutions
<u>Monday 1/23</u>	Chapter 22 / carbonyl alpha substitutions
Wednesday 1/25	Chapter 23/carbonyl condensations
Friday 1/27	Aldol, Claisen, Michael (23.3 later during glycolysis)
<u>Monday 1/30</u>	TEST I 50 points chapters 19,20,21,22
Wednesday 2/1	Chapter 25 carbohydrates- Introduction/classification- 25-1
Friday 2/3	Chapter 25 carbohydrates Stereochemistry 25-2, 3
<u>Monday 2/6</u>	Chapter 25 carbohydrates hemiacetals/acetals 25-6
Wednesday 2/8	Chapter 25 carbohydrates/ reactions- Quiz 2 (10 points)
Friday 2/10	Chapter 25 carbohydrates-disaccharides-polysaccharides
<u>Monday 2/13</u>	TEST II 50 points
Wednesday 2/15	Chapter 26 AA peptides and proteins- AA-properties-structures
Friday 2/17	Chapter 26 AA peptides and proteins-Ionization states-pI, Handerson-Hasselbalch
<u>Monday 2/20</u>	Chapter 26 AA peptides and proteins/AA-synthesis/ protein structure Quiz 3 (10 points)
Wednesday -2/22	Chapter 26 AA peptides and proteins/ Enzymes-coenzymes
Friday 2/24	Chapter 26 AA peptides and proteins/How enzymes work
<u>Monday 2/27</u>	TEST III 50 points (Tuesday 2/28Last day to withdraw and possibly get a W).
Wednesday 3/1	Chapter 27 Lipids- introduction- fatty acids/waxes/ partial hydrogenation
Friday 3/3	Chapter 27 Lipids/ triacylglycerides/ saponification
<u>Monday 3/6</u>	Chapter 27 Lipids/ membrane lipids glycerol and sphingophospholipids
Wednesday 3/8	Chapter 27 Lipids/Eicosanoids Quiz 4 (10 points)
Friday 3/10	Chapter 27 Lipids/steroids From 3/13- to 3/17 Spring break
<u>Monday 3/20</u>	TEST IV 50 points
Wednesday 3/22	Chapter 28: Nucleic acids- Structure
Friday 3/24	Chapter 28: Nucleic acids-DNA-Replication
<u>Monday 3/27</u>	Chapter 28: Nucleic acids-Transcription
Wednesday 3/29	Chapter 28: Nucleic acids –Translation
Friday 3/31	Chapter 28: Nucleic acids –catch up
<u>Monday 4/3</u>	TEST V 50 points
Wednesday 4/5	Chapter 29: The organic chemistry of metabolic pathways (Introduction-My own notes)
Friday 4/7	Chapt. 29: Org. Chem. of metabolic pathways (lipids metabolism-glycerol) 29-2
<u>Monday 4/10</u>	Chapt. 29: Org. Chem. of metabolic pathways (lipids metabolism-beta ox. fatty acids) 29-3
Wednesday 4/12	Chapt. 29: Org. Chem. of metabolic pathways (Carbohydrates metabolism) 29-5
Friday 4/14	Chapt. 29: Org. Chem. of metabolic pathways (fates of pyruvate) 29-6 Quiz 5 (10 points)
<u>Monday 4/17</u>	Chapt. 29: Org. Chem. of metabolic pathways (Citric acid cycle) 29-7
Wednesday 4/19	Chapt. 29: Org. Chem. of metabolic pathways(citric acid cycle) 29-7
Friday 4/21	Chapt. 29: Org. Chem. of metabolic pathways (gluconeogenesis) 29-8
<u>Monday 4/24</u>	TEST VI 50 points <u>LAST DAY OF CLASS</u>
<u>Monday 5/1</u>	Final exam at 8:00 am 100 points