



A&S 100

CHE 229 Syntax in Organic Chemistry

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Course Description:

A&S 100 Syntax in Organic Chemistry introduces the student to the notation and the language of Organic Chemistry. Depending on the chemical principle that one wants to communicate, one chooses to use *eg.* reaction energy diagrams, molecular orbitals, resonance theory, or Lewis structures. This course conceptually unites organic reactions and will enable the student to absorb more from Organic Chemistry lectures due to increased familiarity with the media organic chemists use to communicate.

Prerequisites: CHE 107, AP Chem, or General Chemistry II at the university level.

Student Learning Outcomes: After completing this course the student: (1) will be able to understand and communicate ideas about organic molecular structure in writing with molecular orbitals and Lewis structures; (2) will understand the structural aspects that drive chemical change, and stabilize molecular species in organic reactions; (3) will conceptualize new organic reactions as related to other organic reactions through the looking glass of molecular orbitals; (4) will have a strong concept that chemical change is electronic; (5) will be able think more clearly about organic problems typically encountered in text books.

Course goals or objectives: The major course goal is to unify concepts in Organic Chemistry for the student. Unification facilitates learning; unification displaces the rote memorization of a spate of disparate facts, concepts and reactions. A second course goal is to take the largely formulaic instruction of general chemistry to the 3D molecular structure-based arguments common to organic chemistry. This will ease the transitional issues that make good General Chemistry students bad Organic Chemistry students. Another course goal is get the student accustomed to tackling Organic Chemistry problems. The major indicator of performance in Organic Chemistry is whether students do problems.

Required Materials: 1) A web browser with an internet connection.

Description of Course Activities and Assignments:

Instruction is organized in units. You should probably plan to do the following every Monday and Wednesday. I will look at the week's work after 18:00 on Friday. So you do have a lot of flex time in all this and you can obviously set your own schedule.

Don't procrastinate! There is no time in the 4-week session for procrastination.

- At the beginning of each unit you will read an outline with learning objectives. At the end of the outline there will be practice and graded problems to do. Reading the outline first and checking out the problems will forewarn you about what to pick up during following video.
- Next watch a ~10 - 20 min video of the instructor communicating structural organic concepts.
- Next read the endnotes. Pay attention to definitions and further reading.
- Now go back to the outline and do the practice problems. You can access some more video in some cases of the instructor working a problem for you. In other cases some other problems are worked for you at the end of the outline. When you are prepared to submit the graded work, go to Blackboard in the assignments sections and do it.
- After the work is graded, a key to the graded problems will be available. Sometimes this key will be a step-by-step video, sometimes it will be pdf.
- The total amount of work should sum to ~one credit hour.

During the 4-week session, 1 cr hour = ~3.5 h/ week. Plan on doing something in CHE 229 MWF.

Course Assignments

Online reading assignments will help students with the concepts introduced. Evaluation of submitted work will be weighted in the following manner.

Online quizzes at 50%

Midterm Exam at 25%

Final Exam at 25%

Summary Description of Course Assignments

Some of the work will not be graded. Students will be able to check their progress by doing some problems before the instructor does the problem. If the student's solution deviates from that of the instructor, and if the work indicates the lack of a key concept, the student is encouraged to ask questions—the student's solution may not be entirely wrong. The point earning opportunities are described above.

Course Grading

Mid-term Grade (for 100-400 level courses, and for undergraduates in 500 level courses)

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (<http://www.uky.edu/Registrar/AcademicCalendar.htm>)

Course Policies

Submission of Assignments:

Assignments will be submitted online. You will have at least three days to complete assignments. All work for credit for the week is due on Friday at 18:00. No credit will be available for late assignments because keys to the assignment will be issued at this time. If you have difficulties with a particular assignment,

please communicate with the instructor at once. He is here to help you learn the material. Obviously starting the assignments sooner is better than

Attendance Policy.

A&S 100 Syntax in Organic Chemistry is an online course. Attendance will not be monitored. Students should access the online material and complete the graded exercises as they become available.

Excused Absences:

Students need to notify the professor of an inability to complete graded work prior to the due when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused periods of indisposition: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for indisposition” by the professor.

Students anticipating an indisposition for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Academic Integrity:

Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: <http://www.uky.edu/Ombud>. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of *Student Rights and Responsibilities* (available online <http://www.uky.edu/StudentAffairs/Code/part2.html>) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability:

Student Services

If you have technical difficulties the University of Kentucky offers technical help with the delivery and/or receipt of course material, in the form of the Teaching and Academic Support Center (<http://www.uky.edu/TASC/index.php>) and the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>). Informing the instructor is the first step to resolving a technical complaint. He will work with you and the students services listed above to make sure that you have access to the material.

Distance Learning Library Services (<http://www.uky.edu/Libraries/DLLS>)
Carla Cantagallo, DL Librarian. Local: 859 257-0500, ext. 2171;
or (800) 828-0439(option #6), Email: dllservice@email.uky.edu