

Chemistry 3719

Introduction to Organic Chemistry 1

Monday, Wednesday, Friday 11 am, Cushwa B112

Professor: Dr. Peter Norris

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Office Hours: Daily 12 to 1, then 2 to 3, or by appointment

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Textbook & Materials: "Organic Chemistry" by David Klein, Wiley publishers (2nd edition preferred, the 1st edition also works); access code for Wiley Plus; the study guide is recommended, as are a set of molecular models (such as those at darlingmodels.com), and the downloadable ChemDraw suite.

Course Objectives: The focus of this course will be to develop an understanding of the underlying principles of Organic Chemistry. The successful student will be able to appreciate the relationship between the structure of an organic compound or intermediate and its physical, chemical, and/or spectroscopic properties. Material presented in this course provides the necessary foundation for advanced studies in Organic Chemistry, including the basic mechanisms of organic reactions, organic synthesis, and bioorganic chemistry. The course also provides a basis for other closely related fields that involve organic molecules. In the first semester we will cover Chapters 1 through 12 of the textbook; in the second term we will cover Chapters 13 through 27.

General Overview: Organic Chemistry is the study of the compounds formed by *carbon*, of which many millions have been identified so far. Organic compounds and their chemistry form the basis of biochemistry and genetics, and are the backbone of the pharmaceutical and petroleum industries. If you intend to study chemistry, biology, pharmacy, medicine, forensics, chemical or biomedical engineering, or any other chemically-based subject, understanding the fundamentals of Organic Chemistry is essential. The material is also relevant to standardized tests used for entry to professional schools in the USA (e.g. PCAT, DAT, MCAT, GRE, etc.). In two semesters we can only hope to cover the basics; however this still amounts to a very large amount of material. Everything that is covered in Chemistry 3719 is relevant when we get to 3720, and you will be expected to remember it all. Consequently it is very easy to get swamped in this class by not studying from the beginning in a consistent manner. Since we will not have time in class to cover every tiny detail contained within the textbook, it is essential that you get into the habit of reading ahead, studying your notes and the text at night, and then working as many problems as possible to see if you understand the material. You will need to spend at least one hour a day outside of class on Organic Chemistry if you want to do well.

The lecture and laboratory portions of the Organic Chemistry sequence are set up to coincide as much as is possible since everything discussed in lecture is the result of past experimental work. You will certainly find yourself using the lecture text book to work out problems from the lab, and hopefully this will help you to understand that lab and lecture are closely interconnected and that this is a subject based on experiment.

If you feel you might struggle with Organic Chemistry, and especially if you did not get good grades in General Chemistry, you are advised to sign up for the recitation class, Chemistry 3719 R, in which the instructor will answer questions and work many problems related to the lecture material. Supplemental Instruction help is also available at the Center for Student Progress in the Kilcawley Student Center.

Assessment: There will be three 50 minute term exams (see the schedule below for dates) worth 100 points each and a 200 point **comprehensive** final. The lab component, Chemistry 3719L, is worth 100 points, and you will also be able to earn 100 points by completing the homework assignments through Wiley Plus, for a total of 700 points for Chemistry 3719/3719L. Note: you must receive **at least 70%** in lab in order to pass Organic Chemistry 3719 overall. You must also receive **at least 50%** on exam questions related to the various reaction mechanisms encountered. The approximate grading scale below will be used **with adjustments made as needed depending upon overall class performance and relative difficulty of exams:**

Exam Schedule:

Exam 1: **Friday September 22nd** (100 points) Exam 2: **Friday October 20th** (100 points)

Exam 3: **Monday November 20th** (100 points) Final: **Monday December 11th** (200 points)

Grading:

A : 700 to 630 points

B : 629 to 560 points

C : 559 to 420 points

D : 419 to 350 points

F : less than 350 points

Online Resources: The Norris website (at dr-peter-norris.com) contains a very large amount of information related to Chemistry 3719 and 3720 including copies of syllabi and links to other useful material for Organic Chemistry students. A link to the ChemDraw software suite, which is very useful for Chemistry 3719 and 3720, is provided on the Courses page. Also, a link to practice problems and several rounds of old exams from the Chemistry 3719 course is provided. Bookmark this page as you will be referring to it frequently.

Request for "Incomplete": A request for a grade of "Incomplete" (an "I" grade) in the course will only be considered if more than 60% of the assignments have been completed as scheduled. An "I" grade will be submitted only when the cause is deemed justifiable and approved by both the instructor and the department chairperson (see *YSU Bulletin*). All incomplete work must be completed by March 1, 2018 otherwise the grade will become an F.

Disability Services: In accordance with University procedures, if you have a documented disability and require accommodations to obtain equal access in this course please contact me privately to discuss your specific needs. You must be registered with CSP/Disability Services and provide a letter of accommodation to coordinate reasonable accommodations. You can reach CSP/Disability Services at (330) 941-1372.

Statement of Non-Discrimination: Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or expression, disability, age, religion or veteran/military status in its programs or activities. Please visit www.ysu.edu/ada-accessibility for contact information for persons designated to handle questions about this policy.

Academic Misconduct: You are referred to the YSU Student Code of Conduct (found on the YSU website) for an account of the typical consequences associated with any academic misconduct. Any attempts at cheating in Chemistry 3719/3719R/3719L will be dealt with severely. If you are caught cheating, for example for copying a lab report, for looking at someone else's paper during an exam, or for using a cellular phone during an exam or quiz, **you will at least be given an F grade for the exercise and possibly for the 3719/3719L course.** During exams there will be teaching assistants present to help monitor proceedings. Also, please bring with you a means of photographic identification; this will be checked at the end of the exam. Since the professor grades all of the exam papers any examples of copying will be discovered and dealt with; random pages of completed tests will be photocopied for the record. **Do not put your future success in risk by cheating.**