

CHEM UA 226-02 ORGANIC CHEMISTRY II

Spring 2017

T/Th 11:00 A-12:15 P

Room: Meyer Hall, Room 121

Instructor: Prof. Lara K. Mahal
E-mail: **NYU Classes

Office: Silver 823, Biomedical Chemistry Institute
Phone: 212-998-3533

** All class-related email is to be sent through the **NYU Classes** system using the internal messaging function. This email will be monitored by myself and by discussion leaders on a regular basis. If you feel that you need to speak to me directly, put ATTN: PROF in the header of your NYU classes email. *Please allow a full business day (24 h, longer over weekends) for a response.* If there is an emergency, you may reach me at lkmaal@nyu.edu, please put EMERGENCY in the title of the email and I will respond as soon as possible. *This system is in place to ensure that your emails do not get lost in my other correspondence, so please follow it.*

Course Description: Welcome to Organic Chemistry II. This course is designed to sharpen your critical thinking skills and further your education in organic chemistry. It will prepare you for more advanced chemistry and biochemistry courses, scientific research and satisfies the organic requirements for medical or dental school.

Professor Mahal's Office Hours: Tuesdays 3:45p-4:45p and Fridays 10:00a-11:00a, beginning 1/27/2017 (this Friday). Office hours will be held in the Chemistry Department Office Hour Room A, located on the 10th floor of the Silver Building adjacent to 1003. *My office hours are an excellent place to ask me questions on the course material and to get some extra help in a friendly environment. All are welcome, especially those who are struggling with the material. It is always better in such cases to get help early, rather than late.*

Recitation Leaders:

Dr. Danielle Vellucci:

Office Hours: Mondays 10:30-11:30 A, Tuesdays 2:00P-3:00P in Chemistry Office Hour Room B

Dr. Nicholas Angelo

Office Hours: Tuesdays 1:00 P-2:00 P in Silver 1001 Q and Thursdays 12:30 P-1:30P in Chemistry Office Hour Room B

Recitations: *Recitations start this week.* All recitations are on **Fridays**, please check your schedules for the appropriate assignments and rooms. **RECITATIONS ARE MANDATORY** (i.e. a requirement of the class). Attendance will be taken. **Failure to attend a minimum of 8 recitations out of the 14 given this semester will result in the automatic lowering of your grade to the next lowest grade** (i.e. A will go to A-, C to D (I do not give C- grades in this class)).

Attendance: Attendance at both lectures and recitations is **mandatory** for your success in this class. *The tests will be based on the lecture notes (i.e. the material covered in the TopX) and, not on the book.* The book, however, is an important reference text. If you do not attend the lectures and recitations, your chances of passing this class with a decent grade *will decrease precipitously.*

NYU Classes: We will be using NYU Classes as our course website. **The course site is a critical place to go for information.** It is also the appropriate mechanism for sending email to myself or to the Recitation Leaders. It will contain useful items such as a posting of this syllabus, Quizzes, Homework Assignments and a synopsis of the day's lecture (i.e. the "Top X"). *You will need access to a computer and printer for this class.*

TopX: The TopX is a synopsis of the day's lecture. It contains the homework assignment associated with the lecture. It is a guide to the most important topics covered in class and as such *is the prime source of information on what you are expected to know for the exams.* It is posted on NYU classes in the Resources Section.

In Lecture Extra Credit: Every lecture, I go over practice problems. For extra credit, students should download and print the standardized lecture practice problem sheet (found on the NYU-Classes site) and do *all of the in lecture problems* on the sheet. *Work done on plain paper will not be accepted, you must use the worksheet.* At the end of the lecture, deposit the sheet in the box corresponding to your Recitation Leader. Your Recitation Leaders will check whether or not you have tried all of the problems. These problems will be returned to you in recitation. *If you have attempted all of the practice problems in a lecture and turned in a minimum of 21 lecture problem sheets, I will add 0.5 grade points of extra credit to your final grade.* If you are close to a grade cutoff, this may mean the difference between an A- and a B+. This extra credit begins 1/26/2017.

Required Texts: The following textbook is **required** for this class and is available at the Bookstore:

Maitland Jones and Steven A. Fleming, Organic Chemistry, Fifth Edition, ISBN Number 0393931498. The textbook is a resource for the material we will cover. It provides a variety of educational questions that will help you to learn the course material. *However, be aware that my exams are based on the material we cover in class and on the related homework assignments not on all of the material covered in the book chapters.* The **TopX** is the best guide for what you are expected to know for the exams. The assigned chapters in the book are suggested reading to help you master the material. The homework is required.

The following Molecular Model Kit is **required**:

Maruzen, HGS Stereochemistry Molecular Model 1013A HGS
Molecular modeling kits are very important. *Model sets are allowed during exams.*

Other Recommended Materials: A positive attitude towards learning Organic Chemistry helps and the willingness to put in the time and effort required to learn the material. A study guide, such as "*Organic Chemistry As a Second Language*" by David Klein might also help those of you who would like more practice and a very practical problem-solving guide.

Homework: Homework problems from Jones and Fleming will be assigned but not collected. It is important to do this homework (*without using the study guide*). The homework will help you to keep up in the class and ensure your understanding of the material, if you do not understand the material, you will be unable to pass the exams.

Laboratory: The laboratory portion will count for **25%** of your final grade. *You are required to pass this component with a minimum score of 55% or you will fail the class.* The laboratory portion has a significant impact on your grade and can either help or hurt you. I have seen it do both. Please remember that. Although the laboratory is coupled to the class, the laboratory is run separately and Professor Mahal does not handle administrative issues for the laboratory, rather you should contact Professor Henssler.

Quizzes: *There will be a **weekly** online quiz that will be administered through NYU Classes, starting THIS WEEK.* Once the quiz is activated, it must be finished at that sitting. All quizzes will count towards your grade. Taken together, the quizzes will count for **10%** of your final grade. **The quizzes are to be done as individual work.**

Exams: There are **two** midterm exams for this class. Please note the days and times NOW. **All will count toward the final grade.** The midterms will be held **Fridays** from **2-4:00 pm** on the following days:

Friday, March 24 2:00-4:00 PM, Rooms TBA.

Friday, April 28 2:00-4:00 PM, Rooms TBA.

***Note:** Organization meetings and jobs are **NOT** considered valid excuses to miss the midterm exams. If you have a job make plans **NOW** to be present at the midterm exams. **Please check the dates and see me *immediately* if you have an unavoidable conflict. You must inform me of any and all conflicts for the midterms by February 9, 2017, otherwise I cannot guarantee accommodations.**

All together the midterms will count for **40%** of your total course grade. **PLAN NOW to be present for the exams!** Failure to take **the** midterm exams will result in an automatic F (or in the case of a justifiable excuse with a note and a passing grade for completed work, an incomplete) being assigned in this class. **It is very important that students avoid any conflict between the scheduled exams and other activities. If unavoidable conflicts exist, please come see me immediately.**

Final Exam: The **Final Exam** will count for **25%** of your grade and will be comprehensive (i.e. anything taught in class during the semester is fair game). **Failure to take the Final EXAM at the scheduled time and place without a documented and approved excuse will result in an**

automatic F being assigned. The final exam is currently scheduled for **TUESDAY MAY 16, 12:00-1:50 P.** The location will be announced. *You are responsible for confirming the final exam date, time and location*

Disabilities New York University provides accommodations for qualified students with disabilities. To ensure that the most appropriate accommodations are provided, students should contact the Moses Center for Students with Disabilities (212-998-4980). *Special needs for the lecture or exams should be brought to attention of the instructor by no later than February 9, 2017.* If accommodations are needed, students must register with CSD (see <http://www.nyu.edu/students/communities-and-groups/students-with-disabilities/how-to-register.html> for more information). If you wait until the exam date or close to it to register with CSD or to inform the instructor, we may be unable to provide appropriate accommodations.

EXAM Regrade Policy: Any questions on the grading of an exam must be submitted to Professor Mahal within *7 days* of the graded exam's return. The entire exam will then be regraded by Professor Mahal. A higher or lower score may result.

GRADING POLICY:

The **final course grade** will be calculated as follows:

First Midterm:	20%
Second Midterm:	20%
Online Quizzes	10%
Final Exam:	25%
Lab:	25%

Total	100%

Note: failure to attend a minimum of 8 recitation sections will result in the lowering of your grade to the next grade level (i.e. A to A-, C to D):

The final grades will assigned based on the following:

86.0-100%	A-/A/A+
75.0-85.9%	B-/B/B+
60.0-74.9%	C/C+ (Note : C- grades will not be assigned in this class.)
50.0-60.0%	D
<50%	F

The instructor reserves the right to adjust grades as deemed appropriate, grades will not go down but may be adjusted upward. *Note:* There are no preset number of A's and B's, i.e. there is no curve. The grade you receive is based on your work, not what your friend got or how it compares to your classmates. If everyone earns an A, then everyone will get an A. If everyone earns an F, you will all get Fs.

How to Master Organic Chemistry: **Do not get behind in this class.** It will be increasingly impossible to catch up and there will be a strong probability of failure. *Come to me early for help if you feel that you are struggling* with the material or you just have questions. You can always send questions through the NYU Classes website, attend my office hours or talk to me after class. Practice, practice, practice. This means do all the homework assigned regularly and be sure that you understand the underlying principles. *Many people try to memorize instead of understand the material. This is a bad idea, memorization of key reactions and concepts is important but understanding is essential to your success in this class.* Once you know how the basic concepts work, it makes understanding the variations much easier. Dredge your memories for the concepts from General Chemistry and Organic Chemistry I, you will need them.

1. Make a personal synopsis or outline of the lecture material and book chapters assigned every week. Rewrite your notes and book chapters using an outline format. Organizing the concepts on the paper will help you to organize it in your mind. FYI: I still have the study notes I made for my chemistry classes including organic, and they are still one of the best reviews of the material for me, I used them to help me study for my qualifying exams in graduate school. Use the TOPX to guide you in this. Again, **DO NOT GET BEHIND.**

2. Make a roadmap that shows all of the varieties of organic molecules (alkanes, alcohols, alkenes, etc.) and draw arrows between them with the appropriate "tools" (reagents and reaction conditions) written over the arrows. Pay particular attention to regio- ("Markovnikov" etc.) and stereochemistry (syn vs. anti addition, etc.) and write this on the road map. This map will help guide you through the world of organic transformations. Keep the map current, add new tools as they are taught. This will help you immensely with the synthesis problems on your exams. Identify the important reactions and know how to use them. A sample roadmap is available in the resources section of the NYU Classes site.

If the homework starts to make logical sense, you are on the right path.

Academic Dishonesty: I expect each of you to conduct yourselves honorably. Students who violate the University rules on scholastic dishonesty are subject to disciplinary penalties including the possibility of failure in the course and dismissal from the University. **Note: Plagiarism in the laboratory is an example of academic dishonesty and can cause you to fail the entire class. The University policies on scholastic dishonesty will be strictly enforced. If you are caught cheating on an exam, you will be given an F in the course and you will be reported to the Office of the Dean.**

Tentative Topic List:

Radical Chemistry (Ch. 12)

Dienes (Ch. 13)

Aromatic Systems (Ch. 14-15)

Carbonyl Chemistry (Ch. 16-19)

Biomolecules (Peptides/Carbohydrates, Ch. 20, 22)