

## SYLLABUS FOR ORGANIC CHEMISTRY II

**Chemistry 3521: Sections M9AL (12583), M9BL (4650), M9ECL (4653), and M9DL (4651)**

Spring 2023

Monday and Wednesday 9:30 AM to 10:45 AM, Room 1310 Ingersoll Hall

**Instructor:** Prof. Alexander Greer

**E-mail:** [agreer@brooklyn.cuny.edu](mailto:agreer@brooklyn.cuny.edu)

**Tel:** 718-951-5000 ext 2830 (email is to be used instead of voice mail)

**Website:** <http://academic.brooklyn.cuny.edu/chem/agreer/FirstPage.html>

**Course Description:** This course is the second part of an introduction to organic chemistry and will expose you to basic topics in the field. The course is aimed at bringing to light various aspects of the field of organic chemistry. It should provide you with tools that can be used to further your understanding of other scientific fields. The course objective co-exists with an effort to involve students in understanding the chemical processes associated with living and inanimate material.

You should have completed Chemistry 3511 prior to taking this class. The prerequisite for Chemistry 3521 is a passing grade in Chemistry 3511. There will be a total of 26 in-person class lectures, and each class period is 75 minutes in length. The course instruction will be conducted in-person, as always, a key goal of the lecture is to present new material that help to supplement the material in the textbook. The lecture exams and final exam will also be in-person.

### **Schedule:**

*Lectures:* Monday and Wednesday 9:30 AM to 10:45 AM (in person). You will need to attend the in-person lectures.

*Office Hours:* Will be held on Monday and Wednesday 11:00 AM to 12 noon (in person) in room 341 New Ingersoll Hall. I am available in office hours for questions about exams, homework, and class notes; email will not be available for these issues.

You can reach me by e-mail ([agreer@brooklyn.cuny.edu](mailto:agreer@brooklyn.cuny.edu)) for issues other than exams, homework, and class notes, but allow 2-4 days for me to respond to emails. Also, contact me through your BC email address, as Gmail, yahoo, and other email addresses do not work well for me (sometimes they are not delivered or go to a spam folder). When contacting me through your BC email address, also include your EMPLID number.

**Class structure and communication.** The Blackboard system will be used for announcements and for access to course documents, such as some of the powerpoint slides. The lectures will be carried out in-person on Monday and Wednesday 9:30 AM to 11:00 AM. The lecture exams and final exam will be held in-person at the dates given below. We will meet in-person for lectures, where I will present slides and explain the material.

I will aim to make copies of slides available to you on Blackboard after the class; however, I do not guarantee it. I will also aim to answer questions during the class time among other activities. I will aim to post recordings of my lectures from a previous year as additional resources, if they are accessible to me. If you miss class and a previous recording of it is not uploaded, I am afraid you will not have an ability to access it, and acquiring a copy of lecture notes from a classmate will be required. Attendance is not mandatory for the lecture or recitation portions of the class.

Here is information on Blackboard Collaborate Ultra:

Quick Video: <https://www.youtube.com/watch?v=1W4sGpVmJaY>

Documentation: <https://help.blackboard.com/Collaborate/Ultra/Participant>

If you have questions for technical support, please direct them to the Brooklyn College Information Technology Services (ITS) Help Desk: 718-951-4357 (phone), and e-mail: [helpdesk@brooklyn.cuny.edu](mailto:helpdesk@brooklyn.cuny.edu)

**Recommendation:** You should keep current with the material since there is a considerable amount of material that we will cover in the course. I encourage you to ask questions and see me in my office hours for help. Asking questions of your recitation instructors are also recommended.

**Grading Summary.** The grading scheme is weighted as follows:

Recitation Grade 30% (Quiz grade = 20%, homework = 10%): **Recitation will be held in-person and the quizzes will be taken in-person.** 20% of the recitation grade will come the top three quiz scores out of the four quizzes taken. 10% of the recitation grade will come the top three homework scores out of the four homework assignments. These best 3 of 4 for both quizzes and homework assignments are to cover instances such as absence due to illness, family emergency, etc.

Your recitation instructor is available to answer questions on the material. Keep in mind that the recitation instructor's main role is to supplement material that has already been presented in the lecture and in the textbook, and to provide students a chance to pose questions.

Quizzes:

- Quiz 1: The week of Feb. 6<sup>th</sup> to cover Chapter 10.
- Quiz 2: The week of Feb. 27<sup>th</sup> to cover Chapters 11 and 16.
- Quiz 3: The week of March 27<sup>th</sup> to cover Chapters 17, 18, and 19.
- Quiz 4: The week of May 1<sup>st</sup> to cover Chapters 20, 21, and 22.

Regarding quizzes and grading. The recitation instructors will deliver the quiz to their section during their recitation time, with an allowed time of between 15-25 minutes. The quizzes can be held in-person. The students will take the quiz and provide their answers to their own recitation instructors. The instructor will go over answers as requested in the following recitation class. These quizzes will be closed-book and closed-note. Students may not use online resources or consult other people for advice, either in-person or electronically. Doing so represents academic dishonesty and will result in a failing grade for the course if discovered.

Homework assignments and schedule (each homework problem set will be assigned by your recitation instructor).

- Homework assignment #1: Due the week of Feb. 14<sup>th</sup> (the first day the recitation meets after this date) (assignment will be one week in advance)
- Homework assignment #2: Due the week of March 6<sup>th</sup> (assignment will be one week in advance)
- Homework assignment #3: Due the week of March 27<sup>th</sup> (assignment will be one week in advance)
- Homework assignment #4: Due the week of May 1<sup>st</sup> (assignment will be one week in advance)

Regarding homework assignment and grading: The recitation instructors will provide homework assignments (typically 10 problems) drawn from homework problems located at the end of each chapter in the textbook, as well as problems taken from the lecture. Homework assignments will be submitted as hard copies (not electronic copies) in which all structures are to be hand drawn. For mechanism and syntheses, these also need to be hand drawn. Hard copies of hand-written homework assignments will be turn in in-person. Homework assignments will not be accepted late. The instructor will go over answers as requested in the following recitation class.

List of recitation instructors and their contact information:

Noushad Mohd	<a href="mailto:Noushad.Mohd@brooklyn.cuny.edu">Noushad.Mohd@brooklyn.cuny.edu</a>	Friday 8:00-8:50 am (M9BR)
Umme Siddqui	<a href="mailto:Umme.Siddiqui@brooklyn.cuny.edu">Umme.Siddiqui@brooklyn.cuny.edu</a>	Tuesday 12:00-12:50 pm (M9CR)
Rosemary Mollica	<a href="mailto:RMOLLICA@brooklyn.cuny.edu">RMOLLICA@brooklyn.cuny.edu</a>	Wed 12:50-1:40 pm (M9DR); Thursday 12:30-1:20 (M9AR)

Lecture Exams 40% (20% each): There will be 2 lecture examinations that will be taken in-person. Exam questions will be based on the reading assignments and lecture notes, and may include any material described in the textbook and discussed in class.

Final Exam 30%: There will be a final examination that will be taken in-person. Students will be responsible for all material covered in class and the assignments of the entire semester. Note that the final exam percent grade will be counted in place of only one low-scoring lecture exams. For example, if you score an 80% on the final exam, and scored an 85% on exam I and a 60% on exam II, a new score of 80% will be assigned for exam II. There are no exemptions from the final. The overall final grade is assigned by myself. After the course ends, I cannot provide information about your grade by email. You can learn about your course grade by visiting the CUNYfirst website.

The first lecture exam will start at 9:30 am on **Monday March 6<sup>th</sup>**; the second lecture exam will start at 9:30 am on **Wednesday April 19<sup>th</sup>**; The final exam will start at 8:00 am on **Monday May 22<sup>nd</sup>**. The examination times are fixed.

The midterm and final exams will contain about 1/3 questions similar to the class notes, 1/3 questions similar to homework problems, and 1/3 questions selected to assess your reasoning skills in organic chemistry. Copies of lecture exams from previous semesters will generally not be supplied. These examinations will be closed-book and closed-note. Students will not have access to the textbook. Students may not use online resources or consult other people for advice, either in-person or electronically. Doing so represents academic dishonesty and will result in a failing grade for the course if discovered. Any evidence of cheating by the student will result in an F in the course and will be reported to our academic integrity groups.

Again, lecture and final examinations will be administered in-person at Brooklyn College (room number 1310 Ingersoll Hall). To ensure access to exams and lectures, you must be in compliance with current COVID-19 guidelines. These guidelines can change over time, see read the following link:

<https://www.brooklyn.cuny.edu/web/about/initiatives/initiatives/return.php>

**Policy for Absence from Exams or Illness During Exams:** No make-up exams will be given to students who are absent from the lecture examinations. Students who miss one exam with a valid excuse will be assigned a score based on the other lecture exam and the Final exam. The absence must be justified to the recitation instructor and me within one week after the missed lecture exam. A grade of zero will be given for unexcused absences from the exam after the one-week period has passed. Missing both lecture exams will result in a score of zero. If you become ill during the exam and feel that you are unable to complete it, inform me immediately and indicate that you are sick and unable to complete it. Your exam will not be graded and you will be considered absent from the exam. If you remain until the end and submit your exam, any claim of illness will no longer be permitted and your exam score will be counted. In the event of absence from the final examination you will need to contact and apply at the Office of Academic Advisement for permission to take the make-up final exam given early the following semester. However, note that a make-up final exam will not be provided to students who have a course average below 55% before the final exam is counted.

**COVID-related Absences:** If you believe you have COVID, you must file a Case Collection form here: <http://www.brooklyn.cuny.edu/web/about/initiatives/initiatives/return/resources/case-collection-form.php>. If this leads you to miss a quiz, exam, or homework, you must contact your recitation instructor and me immediately. An accommodation will be made, but only if you are proactive in seeking assistance from your recitation instructor and myself.

**Course Letter Grade Policy.** Grades are assigned based on the performance in the class. Once overall letter grades for the course are assigned they will not be changed upon request. For example, a student cannot request for a letter grade change from D down to F, or C up to B, C down to an F, etc. For the course letter grade policy, grades are assigned by myself and based on the performance in the class. After the course has concluded after finals week, there is no extra credit or other options to improve your grade. The letter grade shown in CUNYfirst will be the course letter grade and will be available on or about May 30<sup>th</sup>. The overall course letter grade breakdown or cutoffs for where letter grades fell will not be made available.

**Student Bereavement Policy.** Students who experience the death of a loved one must contact the Division of Student Affairs, if the student wishes to implement either the Standard Bereavement Procedure or the Leave of Absence Bereavement Procedure.

**University Policy on Academic Integrity:** The faculty and administration of Brooklyn College support an environment free from cheating and plagiarism. Each student is responsible for being aware of what constitutes cheating and plagiarism and for avoiding both. The complete text of the CUNY Academic Integrity Policy and the Brooklyn College procedure for implementing that policy can be found at this site: <http://www.brooklyn.cuny.edu/bc/policies>. If a faculty member suspects a violation of academic integrity and, upon investigation, confirms that violation, or if the student admits the violation, the faculty member is obliged to report the violation.

**Note Regarding Student Disability Services:** In order to receive disability-related academic accommodations students must first be registered with the Center for Student Disability Services (CSDS). Students who have a documented disability or suspect they may have a disability are invited to set up an appointment with the Director of the Center for Student Disability Services, Ms. Valerie Stewart-Lovell (email: [VStewart@brooklyn.cuny.edu](mailto:VStewart@brooklyn.cuny.edu)). Provisions will be made for students with disabilities and may be granted more time for the online exams. Students who are registered with the Center for Student Disability Services and require accommodation should contact me e-mail for further guidance.

**Required Texts:**

“Organic Chemistry” 8<sup>th</sup> Edition by W. Brown, C. S. Foote, B. L. Iverson, E. V. Anslyn, Brooks/Cole Cengage Learning. The 7<sup>th</sup> Edition of the book may also be used, but copy the homework problems from the 8<sup>th</sup> Edition.

**Recommended Material:** A Molecular Model Set for Organic Chemistry, Prentice Hall.

**Lecture Material:** I will aim to make copies of lecture slides available on Blackboard.

### Course topics and Reading assignments

Day	Date	Subject	Reading
1	Wed. Jan. 25	Alcohols	Ch 10: 10.1-10.4
2	Mon. Jan. 30	Alcohols	10.5-10.8
3	Wed. Feb. 1	Alcohols, Ethers, Epoxides	Ch 10.9, 11.1-11.5
4	Mon. Feb. 6	Ethers, Epoxides	11.6-11.12
5	Wed. Feb. 8	Aldehydes and Ketones	16.1-16.5
6	Wed. Feb. 15	Aldehydes and Ketones	16.6-16.10
7	Tues. Feb. 21†	Carboxylic Acids, Aldehydes and Ketones	Ch 16.11 & 16.12, 17.1-17.4
8	Wed. Feb. 22	Carboxylic Acids	17.5-17.19
9	Mon. Feb. 27	Carboxylic Acid Derivatives	18.1-18.5
10	Wed. March 1	Carboxylic Acid Derivatives	18.6-18.9
11	Mon. March 6	EXAM #1††	CHAPTERS 10, 11, 16
12	Wed. March 8	Enolate Anions and Enamines	Ch 18.10 & 19.1-19.4
13	Mon. March 13	Enolate Anions and Enamines	19.5-19.9
14	Wed. March 15	Conjugated Systems, Pericyclic Reactions	20.1-20.3
15	Mon. March 20	Conjugated Systems, Pericyclic Reactions	20.4-20.5
16	Wed. March 22	Benzene and Aromaticity	Ch 20.6 & 21.1-21.3
17	Mon. March 27	Benzene and Aromaticity	21.4-21.5
18	Wed. March 29	Reactions of Aromatic Compounds	22.1-22.2
19	Mon. April 3	Reactions of Aromatic Compounds	22.2-22.3
20	Mon. April 17	Amines	23.1-23.3
21	Wed. April 19	EXAM #2††	CHAPTERS 10, 11, 16-21
22	Mon. April 24	Amines	23.4-23.10
23	Wed. April 26	C–C Bond Formation and Synthesis	24.1-24.6
24	Mon. May 1	Carbohydrates and Lipids	25.1-25.3 & 26.1-26.2
25	Wed. May 3	Lipids and Amino Acid	26.3-26.6 & 27.1-27.2
26	Mon. May 8	Amino Acid and Nucleic Acids	27.3-27.5 & 28.1-28.2
27	Wed. May 10	Polymer Chemistry	29.1-29.3
28	Mon. May 15	Polymer Chemistry	29.4-29.6
29	Mon. May 22†††	Final Exam (starts at 8:00 am)	ALL CHAPTERS LISTED ABOVE

† Notice this is a conversion day, where we meet on Tuesday instead of Monday.

†† The exam can cover any material discussed in these chapters and topics discussed in class. Do as many problems at the end of the chapter as you can do.

No Classes are Scheduled for: Feb. 13, Feb. 20, April 5, April 10, and April 12.

††† Final exam will be held on the second to last day of finals week, on May 22 beginning at 8:00 am (room 1310 N).

*Syllabus revised: April 23, 2023*