

## ORGANIC CHEMISTRY II

Chemistry 3521: Sections M9AL, M9BL, M9CL, M9DL, M9EL, M9GL and M9JL

Spring 2018

Monday and Wednesday 9:30 AM to 10:45 AM, Room 2310 Ingersoll Hall

**Instructor:** Prof. Alexander Greer

**Office Hours:** 341 New Ingersoll Hall on Monday and Wednesday at 11:00 AM to 12:00 noon; or by appointment. Please see me in my office hours or by appointment for help on the course material. I encourage you to ask questions. I will be 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) or by phone (718-951-5000 ext. 2830) for issues other than exams, homework, and class notes, but allow 2-4 days for me to respond to emails.

**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 Chemistry 3511. Classes will meet for the 17 weeks of the semester. There will be a total of 26 class lectures, and each class period is 75 minutes in length. Examinations will be held on two additional class meetings.

**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 and laboratory instructors are also recommended.

**Grading Summary.** The grade is weighted as follows:

Recitation Grade 25% (Quiz grade = 20%, attendance = 5%): 20% of the recitation grade is based on quiz scores which takes the average of the top 3 out of 4 quizzes. All recitations must be attended, 5% of the recitation grade is based on attendance. The recitation instructor keeps the student's records and is responsible for reporting the final grade. Your recitation instructor will provide additional detail on how the recitation grades will be determined. Upon registration at the beginning of the semester, switching recitation sections is not permitted, you must attend the recitation section in which you have registered for.

Quiz 1: The week of Feb. 20<sup>th</sup> to cover Chapters 10 and 11.

Quiz 2: The week of March 12<sup>th</sup> to cover Chapters 16 and 17.

Quiz 3: The week of April 9<sup>th</sup> to cover Chapters 18, 19 and 20.

Quiz 4: The week of May 7<sup>th</sup> to cover Chapters 21, 22, 23 and 24.

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

Final Exam 35%: Students will be responsible for all material covered in class and the assignments of the entire semester. There are no exemptions from the final. The overall final grade is assigned by a course committee that is made up of myself and the recitation instructors. After the course ends, you can learn about your course grade by visiting the CUNYfirst website.

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.

**Missed Quizzes:** There are no make-up quizzes for any reason, except for a conflict due to a religious holiday, where you will be allowed a makeup in another recitation section.

**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 as soon as possible. A grade of zero will be given for unexcused absences from the exam. 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 a proctor immediately and indicate on the exam 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 of the 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 apply to the Office of Academic Advisement (3207 Boylan) 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 above 50% before the final exam is counted.

**Exam Re-grade Policy and Course Letter Grade Policy.** *A re-grade* of your exam may be allowed so long as you do not use a pencil when taking the exam. Please present questions about the exam to me within one week after I return the exams to you. The entire exam will be re-graded by me and not the grading committee, the latter is made up of recitation instructors and myself. A higher or a lower score can result. I will not discuss any aspect about your exam before you submit it for a re-grade. A decision whom will need to be made by you as to who you think may be harder in grading your exam, myself or the grading committee. Scores will be changed only if they differ from the original score by 3 percentage points or more. Copies of your exam may be made prior to them being returned and will be used as reference. *The 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., etc.

**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 at 718-951-5538. If you have already registered with the CSDS please provide me with the course accommodation form and discuss your specific accommodation with me as soon as possible and at an appropriate time.

**Note Regarding Electronic Devices:** Turn off all cell phones, other electronic devices, etc. during class. A 10-point penalty (that is, loss of 10 points on a lecture exam) will result if any of these items are left on during class.

**Required Texts:**

“Organic Chemistry” 7<sup>th</sup> Edition by W. Brown, C. S. Foote, B. L. Iverson, E. V. Anslyn, Brooks/Cole Cengage Learning.

**Recommended Material:**

A Molecular Model Set for Organic Chemistry, Prentice Hall.

**Lecture Material:**

Copies of lecture slides and material written on the board will not be made available. Taking notes in class is recommended. All lectures must be attended.

Course topics and Reading assignments

Day	Date	Subject	Reading
1	Mon. Jan. 29	Alcohols	Ch. 10: 10.1-10.4
2	Wed. Jan. 31	Alcohols	10.5-10.8
3	Mon. Feb. 5	Alcohols, Ethers, Epoxides	finish Ch. 10.9, 11.1-11.5
4	Wed. Feb. 7	Ethers, Epoxides	11.6-11.12
5	Wed. Feb. 14	Aldehydes and Ketones	16.1-16.5
6	Tuesday Feb. 20	Aldehydes and Ketones	16.6-16.10
7	Wed. Feb. 21	Carboxylic Acids, Aldehydes and Ketones	finish Ch. 16.11 & 16.12, 17.1-17.4
8	Mon. Feb. 26	Carboxylic Acids	17.5-17.9
9	Wed. Feb. 28	EXAM #1†	CHAPTERS 10, 11, 16, 17
10	Mon. March 5	Carboxylic Acid Derivatives	18.1-18.5
11	Wed. March 7	Carboxylic Acid Derivatives	18.6-18.9
12	Mon. March 12	Enolate Anions and Enamines	18.10 & 19.1-19.4
13	Wed. March 14	Enolate Anions and Enamines	19.5-19.8
14	Mon. March 19	Conjugated Systems, Pericyclic Reactions	20.1-20.3
15	Wed. March 21	Conjugated Systems, Pericyclic Reactions	20.4-20.5
16	Mon. March 26	Benzene and Aromaticity	20.6 & 21.1-21.3
17	Wed. March 28	Benzene and Aromaticity	21.4-21.5
18	Mon. April 9	Reactions of Aromatic Compds.	22.1-22.2
19	Mon. April 16	Reactions of Aromatic Compds.	22.2-22.3
20	Wed. April 18	Amines	23.1-23.5
21	Mon. April 23	EXAM #2†	CHAPTERS 10, 11, 16-22
22	Wed. April 25	Amines	23.6-23.10
23	Mon. April 30	C-C Bond Formation and Synthesis	24.1-24.6
24	Wed. May 2	Carbohydrates and Lipids	25.1-25.3 & 26.1-26.2
25	Mon. May 7	Lipids and Amino Acid	26.3-26.6 and portions of 27 & 28
26	Wed. May 9	Amino Acid and Nucleic Acids	portions of 27 & 28
27	Mon. May 14	Polymer Chemistry	29.1-29.3
28	Wed. May 16	Polymer Chemistry	29.4-29.6
	Thursday May 17	FINAL EXAM	CHAPTERS LISTED ABOVE

† The exam can cover any material discussed in these chapters. There is no assigned homework. Do as many problems at the end of the chapter as you can do.

Other Dates:

No Classes Scheduled: Feb. 12, Feb. 19, April 2, April 4, and April 11.

Tuesday Feb. 20<sup>th</sup> follows a Monday schedule.

Wed. May 16: last lecture of class