ORIGINIC CHEMISTRY I Spring 2013 Syllabus
Lecture for recitation sections TR9, TR9A-TR9E

General Information

Lecturer: Dr. Maria Contel
Office: 355 New Ingersoll
Email: mariacontel@brooklyn.cuny.edu
Office Hours: Tues 11-12:00, Thurs 11-12:00 (355 NE)
Phone: 718-951-5000 x2823

<table>
<thead>
<tr>
<th>Recitation Instructors</th>
<th>Mollica (TR9)</th>
<th>Ghogare (TR9B, TR9A)</th>
<th>Grigoryan (TR9C)</th>
<th>Williams (TR9D)</th>
<th>Fraboni (TR9E)</th>
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<tbody>
<tr>
<td>Email</td>
<td><a href="mailto:rosmollica@mindspring.com">rosmollica@mindspring.com</a></td>
<td><a href="mailto:aghogare@brooklyn.cuny.edu">aghogare@brooklyn.cuny.edu</a></td>
<td><a href="mailto:alexgrigoryan@gmail.com">alexgrigoryan@gmail.com</a></td>
<td><a href="mailto:eve32000@aol.com">eve32000@aol.com</a></td>
<td><a href="mailto:afraboni@gc.cuny.edu">afraboni@gc.cuny.edu</a></td>
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<tr>
<td>Office Hrs Location</td>
<td>Tues 12-1, Wed 11-12 357NE</td>
<td>Mon 6-7, Wed 1-2 359H NE</td>
<td>Wed 1-2 N3111</td>
<td>Mon 10-11 359 NE</td>
<td>Tues 12-1 357 NE</td>
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Statement of Course Goals:

The goal of the lecture component of Organic Chemistry I is to introduce students to fundamental concepts of organic chemistry. By the end of the semester, a successful student will:

1) Have a firm grasp on the language of organic chemistry
2) Be able to successfully think about and explain chemical reactions through illustration of mechanisms.
3) Be knowledgeable of chemical reactions and be able to plan multi-step syntheses employing them
4) Be able to interpret spectroscopy and assign chemical structures using spectroscopic data

Required Purchases For Lecture:
2. Molecular Modeling Set

Recommended Purchases For Lecture & Lab:
Resources for Students:
1. My web site (pdf’s of slides, some problems and reviews)
   http://userhome.brooklyn.cuny.edu/mariacontel/teaching.html
2. Nomenclature: http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/nomen1.htm#start
3. Professor Horowitz's Peer-Led Tutor Sessions
   a. Thursdays 1-2:30, 0311 Ingersoll. Email Prof. Horowitz if any details are needed.
4. Practice Problems (check websites of Professors Murelli and Horowitz, see below)
   (http://userhome.brooklyn.cuny.edu/rpmurelli/course.html);
   http://userhome.brooklyn.cuny.edu/ghorowitz/
   a. You should try to use old quizzes and exams in exam and quiz-like atmospheres (timed, no books) to gauge where you are in your understanding of the material.
5. Highly recommended tutorial/supplement
6. Library: Textbook, Solutions Manual & Molecular Models are on Reserve
7. Practice Problems on Prof. Horowitz’ Website: Online Video Tutorials:
   http://www.youtube.com/user/freelanceteach
8. Online Tutorials: http://ochem.jsd.claremont.edu/tutorials.htm#
10. Supplementary Problems Online:
    http://www.cem.msu.edu/~reusch/VirtualText/Questions/problems.htm
    http://www.utdallas.edu/~scortes/ochem/

How to Succeed In Organic Chemistry:
1. Start learning arrow pushing/mechanisms as soon as possible. Get comfortable pushing arrows in right direction.
2. Set aside 10-15 hours per week of study time for the lecture component of this course. More time may be required, especially during first month or so.
3. Attend class religiously.
4. Review the textbook before class.
5. Take notes in lecture.
6. Problem solving is key:
   − Spend the majority of your study time doing problems, not reading.
   − Do the assigned textbook problems plus problems posted on the Horowitz website.
   − Practice each topic until you have mastered it. Don’t stop just because you have completed the assigned problems.
   − Study with a partner or in a group.
   − Don’t be afraid to ask for help. Get help immediately if you get stuck.

Course Grade Breakdown:

Lecture/Recitation

Quizzes 25%
Exam I 17.5%
Exam II 17.5%
Final Exam 35%
Recitation Attendance 5%
KEY DATES

Dates of Quizzes and Exams

- Quiz 1* – 02/18-02/22 week 4
- Quiz 2* – 03/04-03/08 week 6
- Exam 1 – 03/14 week 7
- Quiz 3* – 04/08-04/12 week 11
- Quiz 4* – 04/21-04/25 week 13
- Exam 2 – 05/02 week 14
- Quiz 5* – 05/12-05/17 week 16
- Final Exam – Thursday May 23 8am-10am week 17

Administrative Dates
- Last day to add a course – Fri 02/08 (with late-add form signed by instructor and departmental permission)
- Last day to file pass/fail application – Mon 01/28
- Last day to drop a course without a W – Fri 02/15
- Last day to file for spring graduation – Fry 03/15
- Last day to resolve fall 2012 and intersession 2013 ABS and incomplete grades – Thu 04/25
- Last day to withdraw from a course with a W (non-penalty) grade – Fri 04/12

* Quizzes will be held at your respective recitation. Remember that recitation attendance is part of the grade.

COURSE POLICIES AND PROCEDURES

Academic Integrity:
Academic dishonesty of any type, including cheating and plagiarism, is unacceptable at Brooklyn College. Cheating is any misrepresentation in academic work. Plagiarism is the representation of another person's work, words, or ideas as your own. Students should consult the Brooklyn College Student Handbook for a fuller, more specific discussion of related academic integrity standards. Academic dishonesty is punishable by failure of the "test, examination, term paper, or other assignment on which cheating occurred" (Faculty Council, May 18, 1954). In addition, disciplinary proceedings in cases of academic dishonesty may result in penalties of admonition, warning, censure, disciplinary probation, restitution, suspension, expulsion, complaint to civil authorities, or ejection. (Adopted by Policy Council, May 8, 1991.)

Students with Disabilities:
If you have a disability, it is the responsibility of the university to provide you with reasonable accommodations. You should first register with Ms. Stewart-Lovell, the Director of the Student Disability Services Center (718-951-5538). Then please provide me with a copy of your course accommodation form and if necessary please schedule an appointment with me to discuss your specific accommodation needs.

Absence from Examinations:
No make-up examinations will be given to students who are absent from lecture examinations or recitation quizzes. Students who miss one of the exams with a valid excuse will be assigned a score for the exam missed on the basis of their performance on the other lecture exam and on the final. A grade of zero for lecture will be given if both lecture exams are missed. In the event of absence from the final
exam, students must apply to the Academic Advisement Center for permission to take a makeup final examination given during following semester. No make-up final will be given to any student who is failing the course heading into the final.

**Re-grade Requests:** Any request for a regrade must be submitted in writing using the standardized regrade request form, which can be found on Professor Horowitz’s website ([http://userhome.brooklyn.cuny.edu/ghorowitz/index.htm](http://userhome.brooklyn.cuny.edu/ghorowitz/index.htm))

**Illness During Examinations.** If you become ill during any examination and feel that you are unable to complete it, notify a proctor immediately, write the words "I am sick", and hand in your paper. Your paper will not be graded and you will be considered absent from the examination. If you complete the exam, your paper will be graded and your grade will not be changed by a later claim of illness.

**Expectations for Recitation:**
Students are expected to attend all recitation meetings and to arrive on time. Recitation will be spent working on problem solving. Students are expected to actively participate in this activity. 5 quizzes will be administered throughout the semester. The grade of the best 4 of these 5 quizzes will be considered for the quizzes final grade. Make-up quizzes will not be allowed.

**Cell and smart phones:**
You are not allowed to take or make phone calls during class, send emails or txts or search the internet (your recitation instructors and me as your lecturer will pay attention to this and we will invite you to leave the class if your take or make a phone call). Your cell phone should be in a silent mode or switched off. Cell phones and tablets are not allowed on desks during exams or quizzes. Your cell phone is not a substitute for a calculator.

**Important:**
You are **NOT ALLOWED to use PENCILS in the EXAM. Only exams** written **with PEN** will be considered for grading.

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**Calendar**

- No classes Tuesday February 12th Thursday. Monday March 25th – Tuesday April 2nd (Spring Break)
- Thursday February 14th is a TUESDAY conversion day (classes follow a Tuesday Schedule)

  **First Lecture Examination: March 14th (Thursday) Week 8**

  **Second Lecture Examination: May 2nd (Thursday) Week 15**

  **Final Exam:** May 23 (Thursday) 8am-10am Week 17

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**ALWAYS** bring **NOTEBOOK**, textbook, supplement, molecular models and hand-outs to class and recitation.
| WEEK 1  | Jan 29<sup>th</sup>, 31<sup>st</sup> | **Subject:** Nomenclature of Functional Groups.  
**Subject:** Covalent Bonding (1.1-1.4) and Shapes of Molecules (1.5-1.8).  
**Homework:** Chapter 1, theory and suggested problems (23-25, 27-32, 34, 37, 45, 50-52, 57, 59, 60, 64-67, 71, 72).  
**Nomenclature:** [http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/nomen1.htm#start](http://www2.chemistry.msu.edu/faculty/reusch/VirtTxtJml/nomen1.htm#start) |
| WEEK 2  | Feb 5<sup>th</sup>, 7<sup>th</sup> | Alkanes (2.1-2.10)  
**Homework:** Chapter 2, theory and suggested problems (16, 17, 21, 23, 26-28, 30, 32-36, 39, 40, 42, 46, 48-52, 56, 62-63). |
| WEEK 3  | Feb 14<sup>th</sup>  
**WEEK4**  | Feb 19<sup>th</sup>, 21<sup>st</sup> | **Subject:** Stereochemistry (3.1-3.4) and Diastereomers, Meso Compounds (3.5-3.9)  
**Homework:** Chapter 3, theory and suggested problems (15-20, 22, 24-26, 30-31, 32, 34, 37, 39). |
| WEEK 4  | Feb 21<sup>st</sup>  
**WEEK5**  | Feb 26<sup>th</sup> | **Subject:** Acids and Bases (4.1-4.6) and Alkenes (5.1-5.4)  
**Homework:** Chapter 4, theory and suggested problems (10, 11, 15, 16, 19, 20, 22, 23, 25, 31, 33, 35, 37, 41, 42, 44, 45). Chapter 5, theory and suggested problems (9, 10, 12, 14, 18, 20, 21, 32, 37). |
| WEEK 5  | Feb 28<sup>th</sup>  
**WEEK6**  | March 5<sup>th</sup> | **Subject:** Reactions of Alkenes (6.1-6.7)  
**Homework:** Chapter 6, theory and suggested problems (13, 14, 15-26, 28-30, 32, 33, 37-39, 42-49, 54). |
| WEEK 6  | March 5<sup>th</sup>  
**WEEK7**  | March 12<sup>th</sup> | **Subject:** Alkynes (7.1-7.9)  
**Homework:** Chapter 7, theory and suggested problems (11, 12, 16-18, 20 b-e, g-i, 21 c-f, 29). Chapter 8: 10-12, 14, 15, 16. |
| WEEK 7  | March 14<sup>th</sup> | **FIRST LECTURE EXAMINATION** |
| WEEK 8  | March 19<sup>th</sup>, March 21<sup>st</sup> | **Halogenation of Alkanes (8.1-8.8)**  
Chapter 8: 10-12, 14, 15, 16, 18, 21, 23, 26, 28-32. |
| WEEK 10 | April 4<sup>th</sup> | **Organic Synthesis (materials provided by Prof. Contel on her web site)** |
| WEEK 11  | Subject: Substitution Reactions (9.1-9.5), Elimination Reactions (9.6-9.9) and Neighboring Group Effects (9.10-9.11)  
| --- | --- |
| April 9th  
| WEEK 12  | Subject: Alcohols, Thiols (10.1-10.5), Ethers, Sulfides, Epoxides (11.1-11.12)  
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| April 16th  
| WEEK 13  | Finish Chapter 11. Organometallic Compounds (15.1-15.2)  
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<td>April 23rd</td>
<td>Homework: Chapter 15, theory and suggested problems: 7-12, 16-26.</td>
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| WEEK 14  | SECOND LECTURE EXAMINATION  
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<td>May 2nd</td>
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| WEEK 15  | Subject: Nuclear Magnetic Resonance (13.1-13.13)  
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<td>May 7th, 9th</td>
<td>Homework: Chapter 13, theory and suggested problems (11, 13, 15-20 (omit 17g, 17h), 23-25, 28 extra problems available at: <a href="http://www.chem.ucla.edu/~webspectra/">http://www.chem.ucla.edu/~webspectra/</a>).</td>
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| WEEK 16  | Subject: Infrared Spectroscopy (12.1-12.5) and Mass Spectroscopy (14.1-14.4). Green Chemistry (Materials provided by Professor Contel)  
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| May 14, 16th | Final Exam Laboratory (May 14th)  
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<td>Homework: Chapter 12, theory and suggested problems (5-11). Chapter 14, theory and suggested problems (6, 8, 11, 14, 16, 24- 30).</td>
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