QUEENS COLLEGE OF CUNY  
DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY  
CHEMISTRY 251.4 – FALL 2016  
LECTURE SYLLABUS  

Professor Robert Engel  
Class Hours: Tu/Th 1415-1605  
Office Hours: Tu/W 0900-1000  
Email: robert.engel@qc.cuny.edu  

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>TOPIC TITLE</th>
<th>DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bonding</td>
<td>Aug 25, 25, 30</td>
</tr>
<tr>
<td>2</td>
<td>Structure, Functional Groups</td>
<td>Aug 30, Sept 1</td>
</tr>
<tr>
<td>3</td>
<td>Acid-Base Interactions</td>
<td>Sept 1, 6, 6, 8</td>
</tr>
<tr>
<td>4</td>
<td>Structure of Alkanes</td>
<td>Sept 8, 13, 15</td>
</tr>
<tr>
<td>5</td>
<td>Methanol and Ethanol</td>
<td>Sept 13, 15, 20, 22</td>
</tr>
</tbody>
</table>

**Examination I – Chapters 1-4**  
6       | Alcohols                           | Sept 27, 27 |
7       | Carbocations and Radicals          | Sept 20, 22, 29 |
8       | Stereochemistry                    | Sept 29, Oct 13, 14 |
9       | Alkenes I                          | Oct 13, 14, 18, 18, 20 |

**Examination II – Chapters 5-9**  
10      | Alkenes II                         | Oct 20, 25, 25, 27 |
11      | Halides and Organometallics        | Oct 20, 25, 25, 27 |
12      | Substitutions and Eliminations     | Nov 1, 1 |
13      | Alkanes                            | Nov 3, 8, 10, 15 |
14      | Ethers and Epoxides                | Nov 10, 15, 17, 22 |

**Examination III – Chapters 10-13**  
15      | Alkenes II                         | Nov 17, 22, 29 |
16      | Alkanes                            | Nov 29, Dec 1, 1, 6, 6 |
17      | Ethers and Epoxides                | Dec 8, 8 |

Lecture sessions are held on dates indicated in standard font; recitation sessions are held on dates indicated by **bold font**. Examinations are given as scheduled. For recitation sessions you should be prepared to ask questions regarding material in the text or lecture that was not clear to you, and **be prepared to answer problems assigned from the appropriate chapters of the text**. You should read each chapter **before** coming to the lecture on that topic, and you should work the problems of the appropriate chapter before coming to recitation for that chapter.

TEXT – Engel, Baker, and Rizzo, *Organic Chemistry*, latest edition. The text is available from Cognella by - -

Step 1: Log on to https://students.universityreaders.com/store/.
Step 2: Create an account or log in if you have an existing account to purchase.
Step 3: Easy-to-follow instructions guide you through the rest of the ordering process. Payment can be made by all major credit cards.
Step 4: After purchasing, you can access your full or partial e-book by logging into your account and clicking My Digital Materials to get started on your readings right away.
Orders are typically processed within 24 hours and the shipping time will depend on the selected shipping method and day it is shipped (orders are not shipped on Sundays or holidays). If you experience any difficulties, please email orders@cognella.com or call 800.200.3908 ext. 503.

LABORATORY TEXT – For those students taking the laboratory portion (Chem 251.1), the text is: Williamson, Organic Experiments, 9th Edition, Brooks-Cole Cengage Learning ISBN-10: 0618308423(2004) – In addition, laboratory notes provided to you on the course website should be consulted for each laboratory session. Each student is expected to perform in each experiment individually – no teams doing experiments. Students should also purchase a set of molecular models. We will use molecular models extensively in the lecture, recitation, and laboratory, and you will be permitted to use them in the lecture examinations.

GRADING – Examinations (3) during regular class hours (100 minutes in length), 40% of course grade; Final Examination, 2.5 hours in length, date to be announced, 40% of course grade; In-class recitation problem performance, 10% of course grade; Literature (hard copy and Internet) problem reports, 10% of course grade. On the course website are listed a schedule of problems for student presentation in recitation sessions. You should expect to be called upon (randomly, more-or-less) to "perform" by answering the assigned problems (with supplemental related questions by RE) in recitation sessions. Literature problems will be assigned in class at the beginning of the Tuesday classes on 8 September and 3 November. First drafts are due, respectively on 22 September and 17 November respectively, in the in-box of Prof. Engel's email before 2400 of that day. All drafts and final reports are to be submitted in MSWord and should be sent from an email that clearly indicates who is submitting the report. Drafts will be returned to you by email ASAP. Final reports are due in the inbox of Prof. Engel's email before 2400 of 13 October and 1 December, respectively. Submit both draft and Final Report to Prof. Engel's email, robert.engel@qc.cuny.edu, as an MSWord attachment to your email message. You must be present for all scheduled examinations, problem presentations (recitations), and laboratory sessions (for those registered for the laboratory). In the unlikely event that you miss one of the aforementioned sessions, written verification of a valid (medical – physician; legal – judge, immigration officer, desk sergeant, etc.) is required before an alternative is approved. For laboratory sessions, approval means you will be rescheduled to do the laboratory work during another laboratory session no later than two weeks after the session missed. You must get the permission of the host instructor before being allowed to do the laboratory work during another laboratory session as well as have a valid, verified excuse. For missed (validly) examination or recitation session, no make-up examination or problem session is given; after validation of absence, the average grade of other class examinations or problem presentations will be taken as the official grade. Do not miss a Final Examination as this will require you making up such Final Examination at the end of the Chemistry 251.4 course the following semester (Spring 2017) and you will not
be able to register for Chemistry 252.4 in spring 2017. Without written verification of a valid excuse for an absence, a grade of zero (0) will be assigned for such missed examinations or presentations.

Neither cheating nor plagiarism in any form will be tolerated. All work presented by you, by the fact that you present it, is certified by you to be your own work completely. Any act of plagiarism or cheating, in examinations, recitation, literature reports (or laboratory for those enrolled in the laboratory), will be reported to the Vice President for Student Affairs for action, in addition to terminal modification of the grade for the course.