CH 23101, 23201 Organic Chemistry
Summer 2013 3 Credits

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Office Hours: M, Tu, Th  9AM -9-30 AM, 12-12-30 PM and by appointment
Schedule (class times and day(s): M, Tu, Th and F  9-30 A.M.- 12 noon.
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Boston College Mission Statement

Strengthened by more than a century and a half of dedication to academic excellence, Boston College
commits itself to the highest standards of teaching and research in undergraduate, graduate and professional
programs and to the pursuit of a just society through its own accomplishments, the work of its faculty and
staff, and the achievements of its graduates. It seeks both to advance its place among the nation's finest
universities and to bring to the company of its distinguished peers and to contemporary society the richness
of the Catholic intellectual ideal of a mutually illuminating relationship between religious faith and free
intellectual inquiry.

Boston College draws inspiration for its academic societal mission from its distinctive religious tradition.
As a Catholic and Jesuit university, it is rooted in a world view that encounters God in all creation and
through all human activity, especially in the search for truth in every discipline, in the desire to learn, and in
the call to live justly together. In this spirit, the University regards the contribution of different religious
traditions and value systems as essential to the fullness of its intellectual life and to the continuous
development of its distinctive intellectual heritage.

Course Description

Introduction to the chemistry, properties and uses of organic compounds. Modern approach to the
correlation of structure with properties; reaction mechanism, structural and synthetic problems,
spectroscopic methods for identification discussed. A college-level general chemistry course is a
prerequisite.
The ongoing research and development in the organic chemistry field is substantially increasing
the utility of this science in the service of mankind. New approaches and methods used to
synthesize vast number of compounds used to fight and cure numerous life threatening diseases
and also in number of useful products for society.

Course Objectives

1) This course provides the details of theories and mechanisms involved in the above.
2) This course prepares the student to compete favorably for admission to graduate and health
related Professional Graduate schools.
3) The emphasis will be to think out the solutions to the assigned problems rather than rote
memorizing concepts.
4) The student will demonstrate knowledge, skill and competence appropriate to the course across
cultural settings.

Grading

[refer to Prof. Kaul]

WCAS Grading System
The undergraduate grading system consists of twelve categories:  A (4.00), A- (3.67), excellent;
B+ (3.33), B (3.00), B- (2.67), good; C+ (2.33), C (2.00), C- (1.67), satisfactory; D+ (1.33), D
(1.00), D- (.67), passing but unsatisfactory; F (.00), failure; I (.00), incomplete; F (.00), course
dropped without notifying office; W (.00), official withdrawal from course. The graduate grading system is A (4.00), A- (3.67), Excellent; B+ (3.33), B (3.00), good; B- (2.67), C (2.00), passing but not for degree credit; F (.00), failure.

Grade Reports. All students are required to log into the web through Agora to access their semester grades. Students must utilize their BC username and password to log on. If your username or password is not known the HELP Desk located in the Campus Technology Resource Center (CTRC) in O’Neill Library will issue a new one. The CTRC requires a valid picture ID (a BC ID, driver’s license or passport) to obtain your password.

Text(s)/Readings (Required)

Important Policies
http://www.bc.edu/content/bc/schools/advstudies/guide/academicinteg.html

Written Work
Graduate and undergraduate students are expected to prepare professional, polished written work. Written materials must be typed in the format required by your instructor. Strive for a thorough, yet concise style. Cite literature appropriately, using APA, MLA, CLA format per instructors decision. Develop your thoughts fully, clearly, logically and specifically. Proofread all materials to ensure the use of proper grammar, punctuation, and spelling. You are encouraged to make use of campus resources for refining writing skills as needed [http://www.bc.edu/libraries/help/tutoring.html].

Scholarship and Academic Integrity
It is expected that students will produce original work and cite references appropriately. Failure to reference properly is plagiarism. Scholastic dishonesty includes, but is not necessarily limited to, plagiarism, fabrication, facilitating academic dishonesty, cheating on examinations or assignments, and submitting the same paper or substantially similar papers to meet the requirements of more than one course without seeking permission of all instructors concerned. Scholastic misconduct may also involve, but is not necessarily limited to, acts that violate the rights of other students, such as depriving another student of course materials or interfering with another student’s work.

Request for Accommodations
If you have a disability and will be requesting accommodations for this course, please register with either Dr. Kathy Duggan (dugganka@bc.edu), Associate Director, Connors Family Learning Center (learning disabilities or AHD) or Dean Paulette Durrett, (paulette.durrett@bc.edu), Assistant Dean for students with disabilities, (all other disabilities). Advance notice and appropriate documentation are required for accommodations. 
http://www.bc.edu/content/bc/libraries/help/tutoring/specialservices.html.

Attendance
Class attendance is an important component of learning. Students are expected to attend all classes and to arrive by the beginning of and remain for the entire class period. When an occasion occurs that prevents a student from attending class, it is the student’s obligation to inform the instructor of the conflict before the class meets. The student is still expected to meet all assignment deadlines. If a student knows that he or she will be absent on a particular day, the student is responsible for seeing the instructor beforehand to obtain the assignments for that day. If a student misses a class,
he or she is responsible for making up the work by obtaining a classmate's notes and handouts and turning in any assignments due. Furthermore, many instructors give points for participation in class. If you miss class, you cannot make up participation points associated with that class. Types of absences that are not typically excused include weddings, showers, vacations, birthday parties, graduations, etc. Additional assignments, penalties and correctives are at the discretion of the instructor. If circumstances necessitate excessive absence from class, the student should consider withdrawing from the class. In all cases, students are expected to accept the decision of the instructor regarding attendance policies specific to the class.

Consistent with our commitment of creating an academic community that is respectful of and welcoming to persons of differing backgrounds, we believe that every reasonable effort should be made to allow members of the university community to observe their religious holidays without jeopardizing the fulfillment of their academic obligations. It is the responsibility of students to review course syllabi as soon as they are distributed and to consult the faculty member promptly regarding any possible conflicts with observed religious holidays. If asked, the student should provide accurate information about the obligations entailed in the observance of that particular holiday. However, it is the responsibility of the student to complete any and all class requirements for days that are missed due to conflicts due to religious holidays.

There may be circumstances that necessitate a departure from this policy. Feel free to contact the WCAS at 617-552-3900 for consultation.

**Deadlines**
Assignments are due at the beginning of the class period on the specified dates. Late assignments will be graded accordingly.

**Course Assignments** (readings, exercises and/or experiences):

Chap 1 & 2

Brief review of Chemical bonding: covalent and polar bonding, Dipole moments, formal charge, hybridization, resonance, acids and bases

Chap. 3

Functional groups, alkanes, isomerism, naming of alkanes, conformations of ethane, propane, butane etc.

Chap. 4

Cycloalkanes, cis-trans isomerism, conformations, axial and equatorial bonds.

Chap. 6

General overview of organic reactions and mechanisms, energy diagrams, transition states.

Chap. 7 & 8

Alkenes, naming, degree of unsaturation, geometric isomerism, details of reactions and mechanisms, synthetic utility

Chap. 9

Alkynes, naming, preparation, reactions and synthetic applications

Chap. 5

Stereochemistry, enatiomers, diastereomers, meso compounds, optical activity, configuration

Chap. 10

Brief outline for the preparation of alkyl halides, halogenations.

Chap. 11

Detailed discussion of nucleophilic substitution and elimination reactions.

Chap. 12

Spectroscopy and structure determination, mass spectroscopy, infra red spectroscopy.