Chemistry 334 Lecture Syllabus
Spring 2012

Instructor: Dr. Fernanda Burke

Office: Bradley 222

Office Hours: M: 10am-11am, T: 11am-1pm, W: 10am-11am, or anytime you can find me in my office or in the labs (Bradley 201, 202, or 208)

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Lecture: MW: 11am-12:15pm, Bradley 226

Pre-requisite: CHEM L333 or equivalent course; a grade of "C" or better is strongly recommended.

Objective: This course is the second part of a two-semester Organic Chemistry course offered to introduce students to the fundamental principles of organic chemistry and to communicate the excitement of scientific discovery. The overall objective of the course is to lay a solid foundation of organic chemistry for students of future advanced studies in chemistry and other important areas such as biochemistry, medical fields, applied life sciences that require thorough understanding of organic chemistry.

Learning Outcomes: Following the completion of the Organic Chemistry II course the students will be able to:

- understand the three-dimensional structure of carbon compounds based on hybridization, covalent, and ionic bonding.
- know the nomenclature and classification of organic compounds based on functional groups and structure.
- specifically write the accurate names (IUPAC and some common names) for organic structures (alkanes, alkenes, halides, alcohols, alkynes, ethers, and some organometallic compounds).
- translate organic compound names into precise structural drawings.
- correlate molecular structure with physical and chemical properties.
- categorize reactions by type and write reaction mechanisms for the synthesis of several functional groups.
- correlate energy changes with molecular structure changes during chemical reactions.
- solve problems related to the concepts addressed above.

Text(s): Organic Chemistry by Brown, Foote, Iverson, and Anslyn, 5th Edition, Brooks/Cole, 2009 with OWL online tutorial.

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Attendance Policy: Classroom attendance and participation are required in this course. Not only are you expected to arrive on time to class, but you are also expected to stay for the entire class period, participate in classroom discussion, ask questions, and periodically present or lead discussions on assigned special topics.

According to the *USC Academic Bulletin,* "absence from more than 10 percent of the scheduled class sessions, whether excused or unexcused, is excessive and the instructor may choose to exact a grade penalty for such absences." Please note that USC makes no distinction between "excused" and "unexcused" absences. This course meets 3 times a week for lecture and 1 time a week for lab. Being more than 10 minutes late to class or leaving class early will count as an absence. Thus, if a student misses more than **3 lectures** or **1 lab,** his or her final grade in the lecture course will be dropped one letter grade. Continual tardiness may also result in a drop in a student's grade.

Students are responsible for any work or assignments missed during absences. If a quiz is missed during lecture, the student will receive a zero for that quiz. If homework is turned in a day late or after lab or lecture begins, the final grade on that homework will be dropped one letter grade.

Reading: Reading assignments are given each day along with homework problems. You will need to stay on top of the reading assignments to be successful in this course. The reading material will be a part of classroom discussions and may be asked on quizzes or tests.

Homework: In addition to the reading assignments, problems from both the book and OWL online tutorial will be assigned for homework after each lecture. Homework assignments are due according to the schedule posted on the course homepage in the OWL program. All assigned problems on OWL will be graded upon completion, and the grades will be posted on OWL after the due date has expired for each chapter. Upon completion the course, the grades for all the assignments will be averaged and that will be the grade for the homework component of the course.

Grading: There will be 3 tests covering lecture topics, reading assignments, and assigned homework problems. Each test typically will have a combination of short answer, calculations, chemical formulas, and reaction mechanisms. There may also be a few extra credit questions on each test. The final exam is a comprehensive exam over all of the material covered in the course. If any material is covered after the last test, it will also be included on the final exam. **If you do not show up for a test, there will be NO MAKE UPS given**, except under extreme circumstances.

Your final grade in this course will be based on the following:

3 Tests (20% each)	50%
Comprehensive Final Exam	30%
Homework/Classroom Participation	20%

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Grade Scale:	90-100	A	70-76	C
	87-89	B+	67-69	D+
	80-86	B	60-66	D
	77-79	C+	Below 60	F

Academic Integrity: It is the responsibility of every student at the University of South Carolina at Lancaster to adhere steadfastly to truthfulness and to avoid dishonesty, fraud, or deceit of any type in connection with any academic program. Any student who violates this rule or who knowingly assists another to violate this rule will be subject to disciplinary action.

General Education: General educational is the set of fundamental skills (reading, writing, reasoning, and oral communication), the knowledge, and the capacity for thought needed to pursue further learning, to succeed in chosen fields, and to assume the responsibilities of informed and enlightened citizenship.

Communication Skills

USC Lancaster helps its students read effectively and attain a basic familiarity with the basic texts of the Western and other cultures. In the area of writing skills, USC Lancaster students work to develop the ability to write effectively for both academic and professional audiences. In addition, USC Lancaster helps its students learn to listen critically and speak effectively before a group.

Critical Thinking

USC Lancaster helps its students acquire analytical reasoning abilities and exercise informed value judgments. USC Lancaster students also work to develop mathematical and/or computational skills.

General Education:

Cultural Literacy

USC Lancaster strives to give its students an understanding of the history and culture of Western civilization as well as provide some exposure to other cultures. USC Lancaster also recognizes the centrality of science and technology to modern culture; therefore, USC Lancaster students also are offered opportunities to increase their understanding and familiarity in these crucial subject areas.

Student Development

USC Lancaster supports the intellectual, personal, physical, and social development of students, in recognition of the critical interdependency of all these areas. By providing opportunities for productive interaction with students, faculty, and staff, USC Lancaster helps students develop a spirit of curiosity, integrity, and confidence in planning and pursuing academic, career, and personal goals.

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Monday	Tuesday	Wednesday	Thursday	Friday
9-Jan Syllabus & Ch 10: Alcohols	10-Jan	11-Jan Ch 10 cont'd	12-Jan	13-Jan *Last day to drop*/add
16-Jan **MLK Day—NO CLASS**	17-Jan	18-Jan Ch 11: Ethers, Sulfoxides & Epoxides	19-Jan	20-Jan
23-Jan Ch 11 cont'd	24-Jan	25-Jan Ch 10 & 11 Problem Solving Session	26-Jan	27-Jan
30-Jan Ch 13: Nuclear Magnetic Resonance	31-Jan	1-Feb Ch 13 cont'd	2-Feb	3-Feb
6-Feb Review for Test #1	7-Feb	8-Feb **Test #1: Ch 10, 11, 13 11am-1pm**	9-Feb	10-Feb
13-Feb Ch 15: Organometallics	14-Feb	15-Feb Ch 15 cont'd	16-Feb	17-Feb
20-Feb Ch 16: Aldehydes	21-Feb	22-Feb Ch 16 cont'd	23-Feb	24-Feb
27-Feb Ch 17: Carboxylic Acid *Last day to withdraw without WF*	28-Feb	29-Feb Ch 17 cont'd	1-Mar	2-Mar
5-Mar	6-Mar	7-Mar **Spring Break—NO CLASSES**	8-Mar	9-Mar
12-Mar Ch 15-17 Problem Solving Session	13-Mar	14-Mar Review for Test #2	15-Mar	16-Mar
19-Mar **Test #2: Ch 15-17 11am-1pm**	20-Mar	21-Mar Ch 18: Derivatives of Carboxylic Acid	22-Mar	23-Mar
26-Mar Ch 18 cont'd	27-Mar	28-Mar Ch 19: Enolates & Enamines	29-Mar	30-Mar
2-Apr Ch 19 cont'd	3-Apr	4-Apr Ch 18 & 19 Problem Solving Session	5-Apr	6-Apr
9-Apr Ch 22: Reactions of Benzene	10-Apr	11-Apr Ch 22 cont'd	12-Apr	13-Apr
16-Apr Review for Test #3	17-Apr	18-Apr **Test #3: Ch 18, 19, 22 11am-1pm**	19-Apr	20-Apr
23-Apr Review for Final Exam *Last day of classes*	24-Apr *Reading day*	25-Apr **Final Exam: Ch 10-11,13,15-19,22 11am-1:30pm**	26-Apr	27-Apr