

Syllabus
General Chemistry I
CHE 310-001

Fall 2007
MWF 8:00 – 8:50 A.M.
SC-308

Instructor: J. H. Niewahner, SC-448

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Office Hours: M 9:00-9:50, T 1:40-2:55, R 9:25-10:40, W 2:00-2:50, F 10:00-10:50

Others by appointment

Faculty Website: <http://www.nku.edu/~niewahnerj/>

Prerequisite: A grade of C or better in CHE 121

Co requisite: CHE 310L

If for any reason you need to withdraw from CHE 310 lecture, you must also withdraw
from the lab, CHE 310L

Required Text: Ege, S. *Organic Chemistry: Structure and Reactivity*; Fifth edition; Houghton
Mifflin: Boston/New York; 2004

Web Access: This is a web-enhanced course which requires students to access and use various
internet resources such as email and Blackboard. For Blackboard go to [http://
learnonline.nku.edu](http://learnonline.nku.edu) and then to Student Support Site and How to Log In.

Course Content: Chapters 1 through 11 of text.

1. An Introduction to Structure and Bonding in Organic Compounds
2. Covalent Bonding and Chemical Reactivity
3. Chemical Compounds Reactions of Organic Compounds as Acids and Bases
4. Reaction Pathways
5. Alkanes and Cycloalkanes
6. Stereochemistry
7. Nucleophilic Substitution and Elimination Reactions
8. Alkenes
9. Alkynes
10. The Chemistry of Aromatic Compounds. Electrophilic Aromatic Substitution
11. Nuclear Magnetic Resonance Spectroscopy

Major Learning Objectives for Organic Chemistry I:

After completing Organic Chemistry I, students will be expected to:

1. Write Lewis structures of molecules and ions and predict the orbitals involved in bonding and predict the geometry of the molecule or ion.
2. Predict the location of partial positive and partial negative charge within a molecule and predict the overall polarity of the molecule.
3. Predict reaction products for organic acid-base reactions, nucleophilic substitution and elimination reactions, and electrophilic aromatic substitution reactions.
4. Predict reaction products for specific classes of reactants such as alkanes, alkenes, alkynes, organic acids and bases, and aromatic compounds.
5. Write reaction pathways/mechanisms for reactions.
6. Name alkanes, alkenes, alkynes, and aromatic compounds.
7. Interpret NMR of simple organic compounds and predict the NMR spectra of simple organic compounds.

Study Time: Approximately 6-8 hours of study time per week. Test preparation will be in addition to the normal study time.

Attendance: Students are expected to attend all classes. Students are responsible for all information, material, and assignments presented in class or distributed on Blackboard.

Assignments: ALL exercises within each chapter and at the end of each chapter are to be completed. Working all the exercises improves your chances of learning the material. However, these will not be graded.

Quizzes: In class quizzes will be given at random. On-line quizzes may be given and are to be done on your own and completed by the due date and time. No credit will be given for late quizzes.

Tests: There will be four tests during the semester. The dates for these tests are listed on the attached schedule. There will be no make-up tests. A student who misses one test will be allowed to have the Final Exam count 37.5% rather than 20%. Each additional missed test will count as zero.

Calculators: Programmable and graphics calculators are not permitted during tests or quizzes. Calculators will be necessary for taking tests and quizzes. In no case may calculators be passed from one student to another during a quiz or a test. The lack of an operable calculator will not excuse a student from having to solve a problem

Grading:

Quizzes	=	10% of overall score
Tests	=	70% of overall score
Final Exam	=	20% of overall score

<u>Overall Score</u>	<u>Final Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C

60 - 69 D
0 - 59 F

Important Dates Relative to General Chemistry I, CHE 310-001

Aug. 20	First day of class	
Sept. 10	Last day to "X" from the course.	
Oct. 29	Last day to "W" from the course.	
Nov. 21 - 23	Thanksgiving Holidays. No class.	
Dec. 7	Last day of class.	
Sept. 14	Test 1.	Chapters: 1,2,3
Oct. 5	Test 2.	Chapters: 4,5
Oct. 29	Test 3.	Chapters: 6,7
Nov. 30	Test 4.	Chapters: 8,9,10
Dec. 12	Exam	Comprehensive. Chapters 1 through 11. 8:00 A.M. to 10:00 A.M.

Chemistry Course Policies

Policies of the Department of Chemistry at Northern Kentucky University

- All items on syllabi are subject to change by the instructor.
- Students are responsible for reading and understanding all items on the syllabi. Any items not understood must be brought to the attention of the instructor within the first two weeks of class.
- The work you will do in any course is subject to the Student Honor Code. The Honor Code is a commitment to the highest degree of ethical integrity in academic conduct, a commitment that, individually and collectively, the students of Northern Kentucky University will not lie, cheat, or plagiarize to gain an academic advantage over fellow students or avoid academic requirements. The Honor Code can be accessed at http://www.nku.edu/~deanstudents/student_rights/honor_code/htm. Cheating will not be tolerated. In accordance with the Code of Student Rights and Responsibilities, faculty members have the right to determine actions to be taken when a student is caught cheating.
- Faculty members reserve the right to dismiss or to have removed a disruptive student from their classrooms.
- A grade of C or better is required in CHE 121 to enter CHE 310
- This is a web enhanced course. Students meet at regularly scheduled class time and will need access to the internet to fulfill course requirements.

General Chemistry Withdrawal Policy

Any student withdrawing from either Organic Chemistry I (lecture) or Organic Chemistry I Lab must also withdraw from the other. Failure to do so will result in the department withdrawing the student from both lecture and lab.

Cell Phones

Students are asked to turn off their cell phones during class. If you expect an emergency call please notify your instructor. Under no circumstance will students be allowed to use their cell phones during a test. Using a cell phone during a test will be considered cheating and will carry the same consequences as cheating.

Cheating

Students caught cheating or plagiarizing for the first time will receive a grade of zero for that test or assignment. Students caught cheating or plagiarizing a second time will receive an F for the course and will be reported to the Dean of Students.

Students with Disabilities

Students with disabilities who require accommodations (academic adjustments, auxiliary aids or services) for this course must register with the Disability Services Office. Please contact the Disability Service Office immediately in the University Center, Suite 320 or call 859-572-6373 for more information. Verification of your disability is required in the Disability Services Office for you to receive reasonable academic accommodations. Visit the Disability Services website at www.nku.edu/~disability/.

MWF
CHE 310-001
FALL 2007

MONTH (WEEK NO.)	MON	TUES	WED	THUR	FRI
AUG (1)	20 1	21	22 1	23	24 1
(2)	27 2	28	29 2	30	31 2
SEPT (3)	3 Labor Day No Classes	4	5 3	6	7 3
(4)	10 3	11	12 4	13	14 T1(1,2,3)
(5)	17 4	18	19 4	20	21 4
(6)	24 5	25	26 5	27	28 5
OCT (7)	1 5	2	3 6	4	5 T2(4,5)
(8)	8 6	9	10 6	11	12 6
(9)	15 Fall Break No Classes	16 Fall Break No Classes	17 7	18	19 7
(10)	22 7	23	24 7	25	26 8
(11)	29 T3(6,7)	30	31 8	1	2 8
NOV (12)	5 8	6	7 9	8	9 9
(13)	12 9	13	14 10	15	16 10
(14)	19 10	20	21 Thkgv Brk No Classes 22 Thkgv Brk No Classes	23 Thkgv Brk No Classes	
(15)	26 10	27	28 11	29	30 T4(8,9,10)

DEC (16)	3 11	4	5 11	6	7 11
	10	11	12 EXAM (1-11) 8:00 – 10:00 13		14