Course Syllabus **General Chemistry I** **CHE 120 – N02** **Spring 2009**

Course Days, Times and Room: M, W, F 11:00 - 11:50, SC 308

Instructor: Dr. Laura Padolik

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Office Hours: M, W, F 9:00 - 10:50

Prerequisite: High school chemistry or equivalent

Corequisite: General Chemistry I Laboratory

Required Text: *Chemistry & Chemical Reactivity*, Kotz, Treichel, & Weaver. Sixth Edition, Thomson, Brooks/Cole

Course Description: Chemistry 120 is a class for science majors where the principles of chemistry; physical and chemical properties of elements and compounds will be explored. This class meets the general education requirements in the natural sciences. This is a web enhanced course. Students meet regularly scheduled class time and will need access to the internet to fulfill course requirements. Students need to earn a minimum grade of C in this class to continue in CHE 121.

Course Calendar: Important dates and the tentative class schedule are found on the class calendar which is on the last page of the syllabus. Students in 120 may be allowed to transfer to CHE 102 until February 2 with instructor permission.

Attendance: Although attendance is not normally taken, students are responsible for all information, material and assignments presented in class.

Blackboard: Students will be expected to use Blackboard to receive announcements and any additional information about class. The syllabus, class calendar, chapter outlines, handouts, answers to in class quizzes and exams will be posted on Blackboard. Out of class, on line quizzes will also be given in Blackboard. See below for more details. Blackboard can also be used to check grades and find useful websites. Links to disability services and the learning assistance program can be found on Blackboard.

Assignments: Chemistry is a problems based course and successfully completing all assigned problems will help you succeed on quizzes and exams. An online website called OWL (Online Web based Learning), administered by Thomson Learning will be available for student use. Problems assigned in OWL will count toward your grade. Due dates for each set of chapter problems are listed on the course calendar. There will be a total of 11 assignments throughout the semester; each assignment worth 10 points. The best 10 scores will count toward your grade.

Quizzes: Two kinds of quizzes will be given. Online quizzes will be given through Blackboard. The dates for these quizzes are listed on the course calendar. Students will have from 2:00 pm on Wednesdays until 4:00 pm on the next day to go online and complete the quiz. Students are expected to work independently without the aid of books or notes. Please follow the NKU Honor Code. Thirteen online quizzes will be given. In class quizzes may also be given. The dates for these quizzes will generally be announced in lecture or on blackboard. Each quiz will be worth 10 points and the best ten scores will count toward your grade. **Once a quiz has gone off line it cannot be reset. If you miss a quiz it will have to be one of your dropped scores.**

Ch.1 & 2 Quiz: On January 28 a 50 point in class quiz will be given over chapters 1, 2 and the polyatomic ions.

Exams: There will be 4 exams and a comprehensive final exam; the dates for these are listed on the calendar. In general, there will be no make up exams. If you miss an exam because of an emergency, you must contact the instructor before the next scheduled class meeting.

Supplemental Instruction: Supplemental instruction will be offered in this class. SI offers weekly group review sessions along with study guides, homework assistance and test preparation. Students are encouraged to attend these sessions at least once a week. The SI leader will be Sarah Davis.

Out of Class Points: Students will be required to earn 25 "out of class" points and can earn up to 30 (5 bonus points). These points can be earned in several ways. Students can earn up to 2 points a week by attending SI sessions. Students can earn up to 2 points a week by attending a chemistry seminar. Students can also earn up to 3 points for summarizing and turning in a chemistry related article from a current newspaper or magazine. See blackboard for the SI and seminar schedules as well as the guidelines and forms required to receive credit. Other methods of earning these points may be announced through out the semester.

Calculators: Calculators are necessary for this class. In order to maintain equality however, programmable calculators will not be permitted for use on exams or quizzes.

Grading:

Exams:	400 points (100 points each)
Final Exam:	155 points
Ch. 1 & 2 Quiz	50 points
Quizzes:	100 points (10 points each)
OWL Homework:	100 points (10 points each)
Out of Class:	25 points

Grading Scale:

A	$\geq$ 747 points
B	664-746 points
C	581-663 points
D	498-580 points
F	< 498 points

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 will not lie, cheat or plagiarize to gain an academic advantage over fellow students or avoid academic requirements.

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.

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 class rooms.
The Instructor reserves the right to modify the syllabus at any time during the semester.

Students are required to read and understand the contents of this syllabus. Any questions must be brought to the instructor's attention by January 26, 2009.

Department of Chemistry
Student Learning Outcomes for General Chemistry I

1. Explain the major concepts and experimental findings in the chemical sciences.
2. Utilize critical thinking skills to apply concept knowledge and adapt experimental techniques to: a) form and test hypotheses and b) solve scientific problems
3. Compile, critically evaluate, and interpret scientific information and data.
4. Effectively communicate scientific information through written and oral means.
5. Evaluate the relationships between chemistry and mathematics, physics, biology, and other disciplines and between chemistry and society.
6. Apply computer technology and other technologies in the comprehension, interpretation, and presentation of the chemical sciences.

Course Objectives for General Chemistry I

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

1. Perform calculations involving chemical and physical processes, use the factor label method, record numerical answers with proper units, and attain proficiency in the proper use of scientific notation and significant figures, including the concept of uncertainty in scientific measurements.
2. Name compounds and ions, write their chemical formulas, calculate their molar masses and percent composition, and determine the empirical and molecular formulas of compounds.
3. Classify substances, reactions, and processes according to various classification schemes.
4. Complete and balance chemical equations, determine whether or not a reaction actually occurs based on chemical and physical properties of the reactants and products, and solve stoichiometry problems.
5. Describe and calculate the energy changes involved in chemical reactions and physical processes.
6. Describe the atomic and electronic structure of the elements.
7. Predict the relative magnitudes of physical properties of elements on their electronic structures.
8. Determine the structures of compounds.
9. Describe properties of real and ideal gases using the Kinetic Molecular Theory and solve gas law problems.

Tentative Course Calendar

January 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
11	12 Chapter 1	13	14 Chapter 1	15	16 Chapter 1	17
18	19 King Day	20	21 Quiz 1 Chapter 2	22	23 Chapter 2	24 OWL 0,1 due
25	26 OWL 2 due Chapter 3	27	28 IC Quiz Chapter 3	29	30 Chapter 3	31

February 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 X-Day Chapter 3	3 OWL 3 due	4 Quiz 2 CUR	5	6 Exam 1	7
8	9 Chapter 4	10	11 Quiz 3 Chapter 4	12	13 Chapter 4/5	14
15 OWL 4 due	16 Chapter 5	17	18 Quiz 4 Chapter 5	19	20 Chapter 5	21
22	23 Chapter 5	24 OWL 5 due	25 Quiz 5 CUR	26	27 Exam 2	28

March 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Chapter 6	3	4 Quiz 6 Chapter 6	5	6 Chapter 6	7
8	9	10	11	12	13	14
15	16 Chapter 7	17	18 Quiz 7 Chapter 7	19	20 Chapter 7	21 OWL 6 due
22	23 Chapter 8	24	25 Quiz 8 Chapter 8	26	27 Chapter 8	28 OWL 7 due
29	30 W-Day Chapter 8	31 OWL 8 due				

April 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Quiz 9 CUR	2	3 Exam 3	4
5	6 Chapter 9	7	8 Quiz 10 Chapter 9	9	10 Chapter 9	11
12	13 Chapter 9	14	15 Quiz 11 Chapter 9	16	17 Chapter 10	18
19 OWL 9 due	20 Chapter 10	21 OWL 10 due	22 Quiz 12 CUR	23	24 Exam 4	25
26	27 Chapter 12	28	29 Quiz 13 Chapter 12	30		

May 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 Chapter 12	2
3 OWL 12 due	4 Final Exam 10:10 – 12:10	5	6	7	8	9
10	11	12	13	14	15	16

CUR – catch up and review days.

All OWL homework is due at midnight.

Quizzes go online at 2:00 pm Wednesday & offline at 4:00 pm on Thursday.