

**Syllabus**  
**General Chemistry Lab**  
**CHE-120L-011 SC 422**  
**Spring 2007**

Instructor: Dr. PJ Ball

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Office Hours: M: 11-1; T, TR: 11-12, 3:30-4:30; open door policy and others by appointment

**Co-requisite:** General Chemistry I Lecture

Please be aware that if you withdraw at any time from the lab, you must also withdraw from the lecture and if you withdraw at any time from the lecture, you must also withdraw from the lab.

**Required Materials:**

- 1) General Chemistry Lab Manual
- 2) Laboratory Record Book, Hayden McNeil Publishing
- 3) Safety goggles
- 4) Calculator: Cell phones may not be used as calculators

**Course Description:**

This is a laboratory course to accompany General Chemistry I. The experiments are designed to highlight basic principles of chemistry as well as chemical and physical properties of elements and compounds. The experiments are designed to familiarize students with basic chemistry laboratory techniques as well as how to keep accurate records of data and observations.

**Experiment Schedule**

Date	Experiment	Due Date
1/8	Check In & Intro to Meas.	1/22
1/15	NO LAB- MLK Holiday	
1/22	Laboratory Measurements (FD)	1/29
1/29	Chemical and Physical Properties	2/5
2/5	Zinc Iodide	2/12
2/12	Chemical Reactions (FI)	2/19
2/19	Copper Cycle (FD)	2/26
2/26	Exam 1	
3/5	Spring Break	
3/12	Titration	3/19
3/19	Alum	3/26
3/26	Calorimetry	4/2
4/2	Spectroscopy	4/9
4/9	Titration of Bleach (FI)	4/16
4/16	Lewis/VSEPR Theory	4/23
4/23	Exam 2	

**Attendance:**

Attendance at ALL lab sessions is required. No lab will be excused. Make-up work will be arranged for legitimate medical problems or other extraordinary circumstances, at the discretion of the instructor. The student must be able to verify their excuse. There will be a maximum of two make-up labs for the semester. All absences beyond two, will result in a zero for the missed lab. In order to make-up the lab, the student is responsible for notifying the instructor within 2 weekdays of the absence. Failure to notify instructor of absences within 2 weekdays will result in a 0 for the missed lab. You are then responsible for scheduling a new lab time within one week of the missed experiment.

**Laboratory Notebook/Report Expectations:**

The lab record book is required for all experiments with the exception of the VSEPR lab. No laboratory manual pages are allowed during the experiment.

A detailed explanation of a complete notebook entry is given on pg. iii of the lab manual.

Before coming to lab, you will need to read the experiment and prepare the following in your laboratory notebook:

- Name, Date, and Title of the experiment (must be written at the top of a new page)
- Experimental Objective (complete sentences must be used)
- Safety Precautions
- Protocol (written on the left column of the record book)

Before beginning the experiment this section will be initialed by your instructor.

While carrying out the experiment you will need to record the following:

- Procedure, data, observations (written on the right column of the record book corresponding to the protocol you prepared). List any deviations from the protocol, the exact amount of reagents used, and any observations.

After completing the experiment, you are expected to

- Perform any calculations associated with the experiment and for each new calculation done, show the formula that was used and how the data was used in the equations. All answers must be recorded using the correct number of sig figs. Calculations must be done in your notebook. Calculations should be a new section of the report and should be written in a very clear and neat manner.
- Complete the data sheets associated with the lab
- Answer any post-lab questions

Lab Reports are due at the beginning of class the week following the completion of the experiment. The penalty for late reports is two points per week day late.

**Formal Lab Reports:**

In addition to the weekly lab reports, you will be required to write two Formal Introductions(FI) and two Formal Discussions(FD)over the semester. Each of these is worth 25 points are designated as FI or FD on the experiment schedule. The format for these formal reports can be found of p.xviii in the lab manual. They will be due at the beginning of class one week after the experiment has been completed.

**General Chemistry Website:** The General Chemistry website is a good resource for extra handouts and instructional guides for each of the labs:

[http://www.nku.edu/~chemistry/general\\_chem/](http://www.nku.edu/~chemistry/general_chem/)

**Exams:** There will be two exams given this semester. The exams will consist of both a practical (~ 30 pts) and written portion (~ 70 pts). For the lab practical, you will be expected to collect accurate data using a previously learned laboratory technique. The written portion of the exam will consist of both multiple choice and short answer questions designed to test your understanding of the purpose and methodology of each experiment.

**Grading:** Your score for the course will be determined by the number of points you earn divided by the total number of points available. The following is a list of the number of points each assignment is worth:

Introduction to Measurements: 25 points

Safety Quiz: 50 points

Laboratory Experiments: 75 points each

Exams- 100 points each

Formal Introductions and Discussions-25 points each

Total Points: 1275

A = 90-100

B = 80-90

C = 70-80

D = 60-69

F = 0-59

### **Policies of the Department of Chemistry at Northern Kentucky University:**

- A grade of C or better is required in CHE 120L to enter CHE 121L
- All items on the syllabus are subject to change at the discretion of the instructor
- Students are responsible for reading and understanding the syllabus. Any items that are not understood need to be brought to the attention of the instructor within the first two weeks of the semester
- The work that you do in this 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.
- Cheating will not be tolerated. Faculty members have the right to determine actions to be taken when a student is caught cheating.
- Faculty members have the right to dismiss or have removed disruptive students from their classroom.
- Please see blackboard for information regarding disability services and the learning assistance program



