

CHE 120L-011
Course Syllabus

General Chemistry Lab I

M 2:00 - 5:00 P.M.

Fall 2004

Instructor Information

Vinay Kumar SC 446; telephone 572-5408; email: kumar@nku.edu
Office Hours: MWF 9:00 - 9:50, T 10:30 -11:30
 Other hours by appointment

Corequisite

General Chemistry I Lecture, CHE 120 (any section)

Required Lab Manual

Laboratory Manual for General Chemistry I (CHE 120L), Third Edition; Hicks Jr., W.Vernon, Niewahner, J.H., and Padolik, Laura; Department of Chemistry, Northern Kentucky University.

Other Required Materials (to be brought to the lab for each experiment)

1) Lab Record Book, Hayden McNeil Publishing; 2) Safety Goggles; and 3) Sponge Towel

Preparation

Students are expected to come to lab with a thorough understanding of the principles involved in the experiment, the goals of the experiment, the safety precautions, and the procedures to be followed. Whenever appropriate, the student should also know what data and observations are anticipated. This requires the student to read the entire experiment ahead of time and read all recommended reading materials.

Record Keeping

For instructions on keeping record of the lab work and how to maintain your note book, see page iii of the lab manual.

Pre-Lab Report:

Before coming to the lab the student should write the following information in the Lab Record Book and turn in the yellow copies to the instructor at the beginning of the experiment:

The Title of the experiment to be done that day, Objective/s or Purpose, Safety Precautions and a Protocol (a list of steps that you expect to follow in carrying out the experiment). The steps should be numbered. For a sample Protocol and how it is to be recorded refer to pages 3 and v of the lab manual.

Lab Report (see next page for information about the due date and late penalty):

Note: As you carry out the experiment, record the data and observations in the Lab Record Book. Blue copies of the data and observations are to be handed in to the instructor at the end of the lab period.

For most experiments the Lab Report will consist of completing the Data Sheets (see pages 7-9 for example) with a pen in a neat and orderly fashion and also answering the Post- lab questions (see page 11 for example). Data must be recorded to the proper number of significant figures, have the correct units, and be clearly identified. All pages must be stapled together in order.

Note: Lab report pages may also be found on the General Chemistry Website:

http://www.nku.edu/~chemistry/general_chem/. These pages may be filled in using the keyboard and/or printed out and filled in by hand.

Introductions and Discussions

For the experiments entitled, “The Empirical Formula of Zinc Iodide” and “A Cycle of Copper Reactions”, a written Introduction and Discussion will also be required in addition to the usual report. On pages xviii and ix of the lab manual you can find information on how the Introduction and Discussion are to be written.

Due Dates and Late Penalty

Reports are due at the beginning of the next lab period. Reports that are handed in after the next lab period will be considered late and will be assessed a 10% late penalty per week. If a report is more than two weeks late, a grade of 50 will be assigned for that experiment. If an experiment is completed, and no report is ever turned in, a grade of 30 will be assigned for that experiment.

Safety

All safety rules must be obeyed. Repeated violation of these rules will result in dismissal from the lab and a grade of zero for that experiment. Habitual violation of Safety Rules during the semester will result in dismissal from the course and a grade of F for the course.

Tests

There will be one test given on October 11 and another on December 6. These tests will consist of both a practical portion and a written portion. The practical portion will be worth between 15 and 25% of the overall test score. The format for the practical portion will be distributed before the test.

Honor Code

As in all other chemistry courses the NKU Honor Code will be enforced in this section of CHE 120 lab. For more information on the Honor Code, please visit the Dean of Students website.

<http://www.nku.edu/~deanstudents/HonorCode.htm>

Grading

Most experiments will be graded on a 100-point basis except the experiments *Nomenclature* and *Lewis Formulas, Formal Charge, and VSEPR* will be assigned 50 points each.

Lab reports = 60% of overall score

Tests = 30% of overall score
 Pre-lab reports = 10% of overall score

<u>Overall Score</u>	<u>Letter Grade</u>
90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

Attendance Policy: If a student misses a laboratory experiment with an emergency excuse, a makeup lab may be scheduled by contacting the instructor within 2 weekdays of the missed lab. The lab must be made up within one week of the missed lab. The student must obtain permission from the makeup lab instructor. Two makeup labs will be permitted. Failure to follow this policy will generally result in a grade of zero for a missed lab.

TENTATIVE Schedule

Dates	Experiments			
August 23	Diagnostic Test, Check-In, Safety			
August 30	Laboratory Measurements (p. 1)			
September 6	Labor Day---No Class			
September 13	An Introduction to Chromatography (p. 21)			
September 20	The Empirical Formula of Zinc Iodide (p. 29)**			
September 27	Chemical Reactions (p. 35)			
October 4	A Cycle of Copper Reactions (p. 79)**			
October 11	Lab Test 1 (Aug. 30 – Sept. 27)			
October 18	Fall Break ---No Class			
October 25	Titration (p. 47)			
November 1	Calorimetry and Hess's Law (p. 65)			
November 8	Absorption Spectroscopy (p. 87)			
November 15	Lewis Formulas, Formal Charge and VSEPR (p. 93)			
November 22	Synthesis of Alum (p. 109)			
November 29	The Ideality of Hydrogen Gas (p. 57)			
December 6	Lab Test 2 (Oct. 4 – Nov. 29)			

**For these two experiments introductions and discussions will be written.

Please note: 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 within one week of the distribution of this syllabus.

