

CHE 120L-011
Course Syllabus

General Chemistry Lab I

Mon 2:00-5:00 pm

Fall 2006

Instructor Information

Vinay Kumar SC 446; telephone 572-5408; email: kumar@nku.edu

Office Hours: MWF 9:00 - 9:50, R 9:30 – 11:30
Other hours by appointment

Co-requisite

General Chemistry I Lecture, CHE 120 (any section)

Required Lab Manual

Laboratory Manual for General Chemistry I (CHE 120L); 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 notebook, 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. (see sample write-up on page v of the lab manual): [The Title of the experiment to be done that day, Objective/s, Safety Precautions and a Protocol]. A sample protocol is shown on page 3 of the Lab. Manual. Make sure all the steps of the protocol are numbered.

Note: As you carry out the experiment, record the data and observations next to the protocol (see sample format on page vi of the lab manual). At the end of the experiment, before leaving the lab. turn in the carbon copy of the Pre- Lab Report, including, the data and observations to the instructor.

Lab Report

Except for the two experiments mentioned under the Introductions and Discussions section below, the Lab Report will consist of completing the Data Sheets with a pen in a neat and orderly fashion (see pages 15-17 for example) and also answering the Post-lab questions (see page 18 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/CHE120_Labs.htm. 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 xix of the lab manual under Formal Report Instructions 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 Oct. 9 and another on Dec. 4. These tests will consist of both a practical portion and a written portion. The practical portion will be worth between 20 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>

Attention: Students with Disabilities:

Please note that The NKU office of Disability Services (DS) is committed to providing learner-centered assistance and resources to students with disabilities in their transition

to Northern Kentucky University. This office is located in UC 320; phone number: 859-572-5180.

Grading

Two experiments, namely, *Introduction to Measurements* and *Lewis Formulas, Formal Charge, and VSEPR* will be assigned 50 points each. All the other experiments will be worth 100-point 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 and Make-Up Lab Policy:

If a student misses a laboratory experiment with an emergency/sickness excuse, a makeup lab may be scheduled by contacting the instructor **within 2 weekdays** of the missed lab. The instructor will provide you with a signed "Permission to Make-Up the Lab" form. The lab has to be made up within one week of the missed lab. The student must also obtain permission from the makeup lab instructor. Only 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 (Monday section)

Dates	Experiments			
Aug. 21	Check-In, Lab Safety, OWL, & Intro Measurements			
Aug. 28	An Introduction to Chromatography			
Sept. 4	No class			
Sept. 11	Chem. And Physical Properties			
Sept. 18	The Empirical Formula of Zinc Iodide **			
Sept. 25	Synthesis of Alum			
Oct. 2	Chemical Reactions			
Oct. 9	Lab Test 1 + Lab practical 1			
Oct. 16	Fall Break ---No Class			
Oct. 23	Titration			
Oct. 30	Calorimetry and Hess's Law			
Nov. 6	Absorption Spectroscopy			
Nov. 13	Titration of Bleach			
Nov. 20	A Cycle of Copper Reactions **			
Nov. 27	Lewis Formulas, Formal Charge and VSEPR			
Dec. 4	Lab Test 2 +Lab practical 2			

****For these two experiments you will also write and hand in the Introduction and Discussion sections.**

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.

