

Course Syllabus

General Chemistry I Laboratory

CHE 120L - 012
M 2:00 - 5:00, SC 426

Fall 2003

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Office Hours:

M, W, F 10:00 - 11:30

Prerequisite: High school chemistry or equivalent

Corequisite: General Chemistry I Lecture

Required Text: Laboratory Manual for General Chemistry I (Third Edition)

Required Materials: Laboratory Record Book and Safety Goggles

Blackboard: Students will be expected to use Blackboard to receive announcements and any additional information about class. Attached to this syllabus are the instructions for using Blackboard. Be sure to click on **Student Tools** and update all personal information, including your preferred email address. Blackboard can also be used to check grades and find useful websites.

Preparation: Students are expected to come to lab with a thorough understanding of the principles involved in the experiment, the goals of the experiment and the procedures to be followed. This requires you to read the experiment ahead of time, complete your protocol and carry out any pre-lab exercises, as noted in the schedule. You should also check Blackboard before class to check for any announcements concerning the lab.

Lab Record Book: The laboratory record book will be used to write a protocol for each experiment and to record changes and data collected in each experiment. The protocol must be complete before you will be allowed to carry out the lab. You must be able to use your protocol alone to carry out the laboratory experiment. Copies of the protocol and data are to be handed in after the lab is complete. Each record book entry should contain the title, date and purpose of the experiment along with protocol and data. See pages iii-vi in the lab manual for more information about the lab record book and sample record book pages.

Lab Report: For most experiments the lab report consists of data sheets from the lab manual, calculations and answers to questions at the end of the experiment. All data and calculations must be recorded to the proper number of significant figures. All pages are to be written neatly and turned in stapled and in proper order. 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/Discussions

For The Empirical Formula of Zinc Iodide and The Cycle of Copper Reactions, a written introduction and discussion will also be required. (See schedule.) The introductions will be due the week of the lab; and the discussions will be due one week after completion of the lab (along with the regular lab report).

Due Dates: Each prelab is due at the beginning of lab. Protocols must be complete before lab. Each lab report is due at the beginning of the lab period following completion of the experiment. Late work will be penalized 10% for each day late. If a student misses a lab, it is his or her responsibility to turn in the lab report on or before the due date to avoid losing points. **Lab reports later than one week will not be accepted.** Due dates are subject to change.

Safety: All safety rules must be obeyed. Violation of these rules will result in dismissal from the lab and a grade of zero for that experiment. Safety rules are found in the lab manual on page vii. **No shorts or sandals are allowed in the laboratory.**

Exams: There will be two exams. See schedule.

Attendance: 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.

Grading: See point assignments for each lab, shown below. Points will be divided as follows.

Safety Quiz	25 points	
Lab record book (RB)	25 points each	(250 points)
Prelab worksheets (PL)	15 points each	(105 points)
Reports	50 points each	(550 points)
Introductions, discussions	25 points each	(100 points)
Exams	130 points each	(260 points)

Grading Scale:	A	90% of total points
	B	80%
	C	70%
	D	60%
	F	less than 60% of total points

Important Dates.

September 13	Last day to drop the course with an "X"
October 13	Mid-term grades for freshmen available
November 1	Last day to drop the course with a "W"

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 September 8, 2003.

All students are subject to the Northern Kentucky University Honor Code, which can be found at <http://www.nku.edu/~deanstudents/HonorCode.htm>

TENTATIVE Schedule

Dates	Experiments	*Prelab	Report	Points
August 25	Diagnostic Test, Check-In, Safety		Quiz TBA	25
September 1	No Class			
September 8	Laboratory Measurements (p. 1)	RB, PL (p.5-6)	p. 7-11	90
September 15	An Introduction to Chromatography (p. 21)	RB	p. 25-27	75
September 22	The Empirical Formula of Zinc Iodide (p. 29)**	Intro, RB, PL (p. 31)	p. 33-34**	140
September 29	Chemical Reactions (p. 35)	RB, PL (p. 39)	p. 41-45	90
October 6	Titration (p. 47)	RB, PL (p. 51)	p. 53-56	90
October 13	Lab Exam 1 (Aug. 25 – Oct. 6)			130
October 20	No Class			
October 27	The Ideality of Hydrogen Gas (p. 57)	RB, PL (p. 59)	p.61 - 64	90
November 3	Calorimetry and Hess's Law (p. 65)	RB, PL (p. 73-74)	p. 75-78	90
November 10	A Cycle of Copper Reactions (p. 79)**	Intro, RB, PL (p.83)	p. 85-86**	140
November 17	Absorption Spectroscopy (p. 87)	RB	p. 91-92	75
November 24	Synthesis of Alum (p. 109)	RB	p. 113-114	75
December 1	Lewis Formulas ... (p. 93)		p. 99-107	50
December 8	Lab Exam 2 (Oct. 27 - Dec. 1)			130

*Due before starting lab. RB = record book (protocol), PL = prelab worksheet

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