

## Course Syllabus

General Chemistry I Laboratory  
M 2:00 - 5:00, SC 426

CHE 120L - 012

Fall 2006

Instructor:

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Office Hours:

M, W, F 10:00 - 11:50

Prerequisite:

High school chemistry or equivalent

Corequisite:

General Chemistry I Lecture

Required Text:

Laboratory Manual for General Chemistry I (Fourth 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. 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. Five points per lab will be for neat and orderly lab reports. Lab report pages may also be found on the General Chemistry Website: [http://www.nku.edu/~chemistry/general\\_chem/](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 Titration, 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: Protocols and prelaboratory exercises are due at the beginning of each lab period. 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 the schedule on the next page.

**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 & Lab Measurements	40 points	
Lab record book: protocols	25 points each	(100 points)
protocols with prelab	30 points each	(180 points)
Reports	55 points each	(605 points)
Introductions, discussions	25 points each	(100 points)
Exams	120, 140 points	(260 points)

Grading Scale:	A	$\geq 1170$ points
	B	1040 – 1169 points
	C	910 – 1039 points
	D	780 – 909 points
	F	less than 780 points

**Important Dates,**

September 11	Last day to drop the course with an "X"
October 30	Last day to drop the course with a "W"

If you withdraw from the lecture class you will be withdrawn from the lab.

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.

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 classrooms.

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 September 1, 2006.

### TENTATIVE Schedule

Dates	Experiments	*Prelab	Report	Points
August 21	Check-In, Safety, Measurements			40
August 28	An Introduction to Chromatography (p. 1)	RB	p. 5-7	80
September 4	Labor Day, No Class			
September 11	Laboratory Measurements (p. 9)	RB, PL (p.13-14)	p. 15-18	85
September 18	The Empirical Formula of Zinc Iodide (p. 27)**	Intro, RB, PL (p. 29)	p. 31-32**	135
September 25	Synthesis of Alum (p. 33)	RB	p. 37-38	80
October 2	Chemical Reactions (p. 39)	RB, PL (p.43)	p. 45-49	85
October 9	Lab Exam 1			120
October 16	No Class			
October 23	Titration (p. 59) **	Intro, RB, PL (p. 63)	p. 65-67**	135
October 30	Calorimetry and Hess's Law (p. 69)	RB, PL (p.77-78)	p.79-82	85
November 6	Absorption Spectroscopy (p. 83)	RB	p. 87-88	80
November 13	Titration of a Bleach Solution (p. 89)	RB	TBA	80
November 20	A Cycle of Copper Reactions (p. 51)	RB, PL (p. 55)	p. 57-58	85
November 27	Lewis Formulas ... (p. 95)		p.101-109	55
December 4	Lab Exam 2			140

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

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