

# CHE 120L-12 COURSE SYLLABUS

## General Chemistry I Lab

Spring 2005

Section 12 Tue. 9:25a.m.-12:25p.m. SC 422

Instructor: Julia Y. Bedell

Office Hours: Tue. 8:45 a.m. - 9:15 a.m.  
12:25 p.m. - 1:00 p.m.

Office: SC 322

Email: bedell@nku.edu

Phone: (859) 572-5432

Wed. 9:45 a.m. - 10:45 a.m.

Other hours by appointment

PREREQUISITE: High school chemistry or equivalent

COREQUISITE: General Chemistry I Lecture

REQUIRED TEXT: *Laboratory Manual for General Chemistry I* (120L), 3<sup>rd</sup> Edition.

### REQUIRED MATERIALS:

Laboratory Record Book, Hayden McNeil Publishing

Safety glasses and sponge

Calculator

### COURSE REQUIREMENTS:

1. 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 entire experiment ahead of time and prepare a prelab write-up in your lab record book and complete any pre-lab questions in your lab manual.

The complete title, objectives, and protocol must be written in the Lab Record Book before coming to the lab and the color copies submitted to the instructor at the beginning of the lab period. The protocol is the set of experimental steps one *expects* to follow.

2. Lab Record Book: The lab record book is required for each experiment and each experiment must start on a new page. The whole heading on each page must be filled out. The laboratory record book will be used to write a protocol for each experiment (completed prior to lab) and to record changes, observations, and data collected during lab. Each record book entry should be written in **pen**. Please use complete sentences and always clearly record data to the correct number of significant figures and use appropriate units. An example is available in your lab manual (p. 3). At the end of the lab the copies for observations, data, and any calculations need to be submitted to the instructor.
3. Lab Report: For most experiments the Lab Report consists of completing the "Report" section in the lab manual. All written work must be completed in pen and be legible to the instructor and independently written to receive credit. All pages are to be turned in stapled and in proper order.

4. Due Dates: Each report is due at the **beginning** of the following lab period. Reports received after this time are considered late and will be penalized by 10% for each day late. Reports will not be accepted after 5 weekdays from the original due dates. Students must turn in the report in order receive credit for the experiment. Due dates are subject to change.
5. Tests: There will be two tests (see schedule below). These tests will consist of both a practical portion and a written portion. Programmable and graphing calculators are not permitted during tests. Under no circumstances may calculators be shared during tests.
6. Attendance: Mandatory attendance for every laboratory session. Students must attend the registered lab session and be on time. A tardy student will not be allowed to stay late in order to complete the experiment. If a student misses a laboratory experiment with an emergency excuse, a make-up lab may be scheduled by contacting the instructor within 1 weekdays of the missed lab (by **noon Wednesday**). The lab must be made up within one week of the missed lab. The student must obtain permission from the makeup lab instructor before showing up in the make-up lab class. Two makeup labs will be permitted but is not encouraged. Failure to follow this policy will result in a grade of ZERO for a missed lab.
7. Safety: Wearing of safety glasses, compliance with safety procedures (including proper waste disposal), and upkeep of the lab area comprise part of the student's participation grade. Instructor-initiated withdrawal of a student will occur if a student's conduct in the lab is judged to be unsafe. No shorts or sandals are allowed in the laboratory.
8. Email Account: All students are required to provide the instructor with an email address by the second lab class. Information such as assignments or any changes in the experiments or syllabus will often be provided by email. Students are responsible for this information.

In the Subject heading of your e-mail identify your class (**CHE 120L-13**) before you start on your message. I do not open e-mail messages without proper subject headings. My reply to your e-mail is your confirmation that I received your message.

#### GRADING SCALE:

A:100-90% of total points   B: 89-80   C: 79-70   D: 69-60   F: 59-0

#### GRADING:

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

Safety Quiz	20 points
Prelab worksheets(PL)	10 points each
Lab Record Book(RB)	20 points each
Reports	50-60 points
Introductions, discussions	15 points each
Exams	150 points each

CHE 120L-13 LAB SCHEDULE:

Dates	Experiment Titles	*Prelab	Report
1/11	<b>Check-In, Safety, Diagnostic Test</b>		Quiz TBA
1/18	<b>Measurements (p.1)</b>	RB, PL(p.5-6)	p.7-11
1/25	<b>An Introduction to Chromatography (p.21) **</b>	RB, Intro.	p. 25-27
2/1	<b>Chemical Nomenclature</b>		TBA
2/8	<b>Empirical Formula of Zinc Iodide (p.29)**</b>	RB, PL (p.31)	p. 33-34, Dis
2/15	<b>Synthesis of Alum (p.109)</b>	RB	p. 113-114
2/22	<b>Chemical Reactions (p.35)</b>	RB, PL (p.39)	p. 41-45
3/1	<b>Test 1 &amp; Practical</b>		
3/15	<b>A Cycle of Copper Reactions (p.79)</b>	RB, PL (p.83)	p. 85-86
3/22	<b>Titration (p.47) **</b>	RB, PL (p.51)	p. 53-56
3/29	<b>Calorimetry and Hess's Law (p.65) **</b>	RB, PL (p.73-74)	p. 75-78
4/5	<b>Absorption Spectroscopy (p.87)</b>	RB	p. 91-92
4/12	<b>Titration of Bleach (handout)</b>	RB	handout
4/19	<b>Lewis Formula, Formal Charge, and VSEPR</b>		p. 99-107
4/26	<b>Test 2 &amp; Practical</b>		

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

\*\*For these experiments *Introduction* and/or *Discussion* will be required.

IMPORTANT UNIVERSITY DATES:

March 7-12  
March 28

Spring Break  
Last day to drop a course with a grade of "W"

ADDITIONAL INFORMATION

- All items on this syllabus are subject to change by the instructor.
- The NKU Honor Code is in effect for all written work, quizzes, and exams taken in this course.
- Cell phones and pagers can only be used for emergency purposes.
- Students are responsible for reading and understanding all items on this syllabus. Any items not understood must be brought to the attention of the instructor by January 20, 2005 .
- **If you withdraw from the lecture course, you MUST also withdraw from the lab course.**