

# CHE 120L-19 COURSE SYLLABUS

**General Chemistry I Lab**  
**Section 19 Thurs. 9:25a.m.-12:25p.m. SC 422**

**Fall 2003**

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Office Hours: Wed. 11am-Noon  
Thurs. 1pm-2pm  
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 yellow 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. At the end of the lab the yellow 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 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 (9:25 a.m.) 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 to get 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 2 weekdays of the missed lab (by Monday 10AM). 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 lab. Two makeup labs will be permitted. 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 September 5<sup>th</sup>. Information such as assignments or any changes in the experiments or syllabus will often be provided by email. Students are responsible for this information.

#### GRADING:

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

Safety Quiz	25 points	
Prelab worksheets(PL)	15 points each	(105 points)
Lab Record Book(RB)	25 points each	(250 points)
Reports	50 points each	(550 points)
Introductions, discussions	25 points each	(100 points)
Exams	150 points each	(300 points)

#### GRADING SCALE:

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

#### CHE 120L-14 LAB SCHEDULE:

Dates	Experiment Titles	*Prelab	Report	Points
8/28	Diagnostic Test, Check-In, Safety		Quiz TBA	25

9/4	Laboratory Measurements (p.1)	RB, PL(p.5-6)	p.7-11	90
9/11	Chemical Nomenclature		TBA	50
9/18	An Introduction to Chromatography (p.21)	RB	p. 25-27	75
9/25	Empirical Formula of Zinc Iodide (p.29)**	RB, PL (p.31) Intro.	p. 33-34**	140
10/2	Chemical Reactions (p.35)	RB, PL (p.39)	p. 41-45	90
10/9	Titration (p.47)	RB, PL (p.51)	p. 53-56	90
10/16	Test 1			150
10/23	Synthesis of Alum (p.109)	RB	p. 113-114	75
10/30	Ideality of Hydrogen Gas (p.57)	RB, PL (p.59)	p.61-64	90
11/6	Calorimetry and Hess's Law (p.65)	RB, PL (p.73-74)	p. 75-78	90
11/13	A Cycle of Copper Reactions (p.79)**	Intro, RB, PL (p.83)	p. 85-86**	140
11/20	Absorption Spectroscopy (p.87)	RB	p. 91-92	75
12/4	Lewis Formula, Formal Charge, and VSEPR		p. 99-107	50
12/11	Test 2			150

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

\*\*For these 2 experiments *Introduction* and *Discussion* will be required.

#### IMPORTANT UNIVERSITY DATES:

September 12	Last day to drop a class without a grade appearing
October 21	Last day to drop a course with a grade of "W"
November 26	Thanksgiving Holiday

#### 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 Sept. 5, 2003.
- **If you withdraw from the lecture course, you MUST also withdraw from the lab course.**