

## Course Syllabus

General Chemistry II Laboratory

CHE 121L - 011  
M 2:00 - 5:00, SC 426

Spring 2005

Instructor: Dr. Laura Padolik  
Office: SC 451 Phone: 859-572-6113 e-mail: [padolikl@nku.edu](mailto:padolikl@nku.edu)  
Office Hours: M, W, F 10:00 - 11:30, W 1:30-2:30  
Prerequisite: General Chemistry 120 Lecture and Laboratory  
Corequisite: General Chemistry 121 Lecture  
Required Text: Laboratory Manual General Chemistry II, NKU, 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. 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. Students will be expected to follow the protocol in their record book without referring to their lab manual. 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.

Formal Lab Reports: A minimum of two full formal lab reports will be required instead of pages from the lab manual. Information about the formal lab report can be found in your lab manual on pages xviii-xix. See the schedule for the experiments which will require a formal 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.

|                         |                 |
|-------------------------|-----------------|
| Lab record book (RB)    | 25 points each  |
| Prelab worksheets (PL)  | 15 points each  |
| Regular Lab Reports     | 55 points each  |
| Formal & Asprin reports | 75 points each  |
| Exams                   | 130 points each |

|                |   |                                   |
|----------------|---|-----------------------------------|
| Grading Scale: | A | ≥ 90% of the total points         |
|                | B | 80–89% of the total points        |
|                | C | 70-79% of the total points        |
|                | D | 60-69% of the total points        |
|                | F | less than 60% of the total points |

The Tentative Schedule is attached to the syllabus.

Links to disability services and the learning assistance program can be found on Blackboard.

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 University 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.

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 January 24, 2005.

Faculty members reserve the right to dismiss or to have removed a disruptive student from their classrooms.

## TENTATIVE Schedule

NOTE: The order in which we will perform the experiments is different from the order in your lab manual.

| Date        | Experiment                                  | Prelab*        | Report    | Points |
|-------------|---|----------------|-----------|--------|
| January 10  | Gravimetric Determination of Phosphorus p.1 | RB             | p.5-6     | 80     |
| January 17  | No Class                                    |                |           |        |
| January 24  | Kinetics p. 35                              | RB, PL p.41-42 | p. 43-46  | 95     |
| January 31  | Aspirin Synthesis, p. 21                    | RB, PL p. 29   |           |        |
| February 7  | Aspirin Synthesis continued                 |                | p. 31-33  | 115    |
| February 14 | Chemical Equilibrium p. 47                  | RB             | p. 53-58  | 80     |
| February 21 | Freezing Point Depression p. 7              | RB, PL p. 11   | Formal    | 115    |
| February 28 | Lab Exam 1                                  |                |           | 130    |
| March 7     | No Class                                    |                |           |        |
| March 14    | Acids, Bases and Buffer Solutions p. 59     | RB, PL p.65    | p. 67-70  | 95     |
| March 21    | Titration Curve for a Polyprotic Acid p. 71 | RB, PL p. 75   | p. 77-80  | 95     |
| March 28    | Synthesis of SnI <sub>4</sub> p. 81         | RB             | Formal    | 100    |
| April 4     | The Qualitative Analysis of Anions** p. 99  | RB             | p.103-104 | 80     |
| April 11    | Electrochemistry** p. 89                    | RB             | p.95-98   | 80     |
| April 18    | Nuclear Chemistry** p. 105                  | RB, PL p. 113  | p.115-117 | 95     |
| April 25    | Lab Exam 2                                  |                |           | 130    |

\*Due before lab.

**\*\*These experiments may be changed at the instructor's discretion. If they are, you will be notified by March 25.**

### Other Important Dates.

January 29

Last day to drop the course with an "X"

March 28

Last day to drop the course with a "W"