

C122 Elementary Chemistry Laboratory 2
Indiana University Northwest

TEXT: Elementary Chemistry Lab 2 Linda Wozniowski, 2011, Pearson

C102 is a pre- or co-requisite of C122. If a student withdraws from C102, he/she must withdraw from C122.

Lab Procedures:

Students should bring their own liquid dish soap, 2 towels and safety glasses. The safety glasses must be worn during experiments. A lab coat is optional.

Each student is issued his/her own drawer and set of equipment. He/she is responsible for broken or lost equipment. A fee of \$5.00 will be charged to students who fail to check out of their drawer.

Be prompt for lab; a discussion precedes each lab experiment. **YOU MAY NOT PERFORM THE EXPERIMENT** if you are not in attendance for the pre-lab discussion. **THERE WILL BE NO MAKE-UP FOR MISSED LABS OR EXAMS!**

Late lab reports will be accepted up to one week late (NO LATER) with a 10% reduction in grade.

Course grade:

- *Report Average.....55%** (All explanation-type answers must be written using complete sentences in order to receive full credit.)
- 2 Quizzes.....20%**
- Final Exam.....25%**

*The lowest lab report score will be dropped and the remaining report scores will be averaged. Although it may vary from experiment to experiment, the report score will be based on 1) data and results and 2) answers to questions.

Withdrawal Policy:

A student may withdraw through Friday, March 26th without the consent of the instructor. After March 26th, a student may withdraw only with the permission of his/her dean. Withdrawal is not complete until you have checked out of your drawer.

Course Objectives:

Students completing the C100/C120 sequence will:

1. Demonstrate the ability to identify and explain how scientific theories are formulated, tested, and validated.
2. Demonstrate the ability to integrate and apply scientific methods which include defining parameters of problem, seeking relevant information, subjecting proposed solutions to rigorous testing, and drawing conclusions based on the process.
3. Demonstrate an understanding that all matter in the universe is composed of atoms that react in predictable fashions to control us and our environment.

RIGHT TO ACCOMMODATION FOR INDIVIDUALS WITH DISABILITIES

Indiana University is committed to creating a learning environment and academic community that promotes educational opportunities for all individuals, including those with disabilities. Course directors are asked to make reasonable accommodations, upon request by the student or the university, for such disabilities. It is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation. Indiana University will make reasonable accommodations for access to programs, services, and facilities as outlined by applicable state and federal laws.

Campus support office: Davetta Haywood, Disabilities Coordinator, Hawthorn 237, 219-980-6942 Student Support Services
www.iun.edu/~supportn

C122 LABORATORY SCHEDULE – SPRING 2012

| <u>Date</u> | <u>Pages</u> | <u>Experiment</u> |
|-------------|--------------|---|
| 1-11 | 3-14 | Laboratory Safety in the Organic Lab |
| 1-18 | 15-24 | Hydrocarbons |
| 1-25 | 25-36 | Reactivity of Hydrocarbons |
| 2-1 | 37-50 | Alcohols and Phenols |
| 2-8 | 51-62 | Amines & Amides |
| 2-15 | 63-78 | Aldehydes, Ketones and Carboxylic Acids |
| 2-22 | | Quiz 1 (over chapters 17,18,19, 20 and 21) |
| 2-29 | 77-88 | Synthesis of Aspirin |
| 3-7 | 89-100 | Amino Acids & Proteins |
| 3-14 | - | <i>Semester Break</i> |
| 3-21 | 101-110 | Enzymes |
| 3-28 | | Quiz 2 (over chapters 23,24,25); |
| 4-4 | 111-122 | Carbohydrates |
| 4-11 | 123-134 | Digestion of Foods |
| 4-18 | 135-146 | Fats in the Diet Check-out; |
| 4-25 | - | Final Exam (comprehensive) |

C120/C122 EQUIPMENT LIST

| Quantity | ITEM | Replacement record |
|----------|--|--------------------|
| 1 | 400 mL beaker | |
| 2 | 250 mL beaker | |
| 1 | 100 mL beaker | |
| 1 | 50 mL beaker | |
| 1 | 250 mL flask | |
| 2 | 125 mL flask | |
| 1 | 50 mL flask | |
| 1 | 125 mL suction flask w/ rubber adapter | |
| 1 | 100 mL graduated cylinder | |
| 1 | 25 mL graduated cylinder | |
| 1 | 10 mL graduated cylinder | |
| 2 | Glass stirring rod | |
| 2 | Watch glass | |
| 1 | Plastic funnel | |
| 1 | Buchner funnel | |
| 1 | Wire screen | |
| 1 | Recrystallization dish | |
| 1 | Test tube holder | |
| 1 | Test tube rack | |
| 15 | Test tubes, assorted sizes | |
| 4 | Medicine droppers | |
| 1 | spatula | |
| 1 | microspatula | |
| 1 | sponge | |
| 1 | Cork ring | |
| 1 | thermometer | |
| 1 | Pipet bulb | |
| 1 | Test tube brush | |

Name _____

Student ID Number _____

I have been advised that I must return all assigned laboratory equipment to IUN in satisfactory condition. I will pay IUN the appropriate replacement cost for any item broken, lost or damaged.

Signature _____

Assessment _____

Student's Name _____ ID # _____

Instructor _____ Date _____