

**GENERAL CHEMISTRY I**  
**CHEM-1100-001**  
**LABORATORY POLICY**  
**FALL 2003 SEMESTER**

**Introduction:** The laboratory part of General Chemistry I is an essential, fascinating and challenging part of the course. It will supplement and enhance the lecture material and help you greatly in understanding the subject. Chemistry comes easily to few people. Most students find it difficult to master. The laboratory instructors are here to help you meet the challenge. These pages tell you exactly what we expect of you and what you need to do to succeed. We expect you to follow these guidelines but we always welcome your suggestions, comments and opinions.

**Laboratory Prestudies:** A prestudy page will be due to your individual lab instructor on the date indicated by him. Answers to most prestudy questions can be found just by reading the laboratory experiment write-up. Your graded prestudies will be handed back in the recitation period preceding the lab. Review any errors you made so you are well prepared for the lab. If you happen to miss a lab, hand in the prestudy anyhow. Late prestudies will be penalized as indicated by your lab instructor. Your lowest prestudy score will be dropped from your final average.

**Laboratory Experiments:** To begin doing laboratory experiments, you must be present at the first lab meeting to hear the safety lecture. Then you must read the safety policy and sign the statement on the last page that says you understand the safety rules and agree to abide by them. You will do one laboratory experiment every week on the dates shown on the lab schedule. You will work on your own, without a lab partner on most experiments. If you don't understand something, ask the lab instructor. One of his primary functions in the lab is to guide you. During each experiment, the instructor will observe you and help you with lab technique. For full credit, a properly filled-out data sheet must accompany every report you hand in.

**Laboratory Report Requirements:** A written report is required for every laboratory experiment you do in General Chemistry. Lab reports are worth about 25% of your lab report grade. Just as you work on your experiments by yourself, so should each lab report be individual effort. You receive credit for them so they must be your work alone. Never copy results or answers to questions from anyone else. Consider these laboratory experiments and the reports you write as training to help you complete in the world outside the classroom. Make each lab reports a neat, informative, high quality, professional looking document that you are proud of. A report for each experiment is due at next week's lab period. If you know in advance you will be absent from lab, hand in your report ahead of time in lecture. You cannot get credit for a lab report unless you are present to do the experiment. Your graded reports will be handed back at the next lab. Go over your graded reports to make sure you understand any errors you made. This is important so you can improve your subsequent reports. There are no makeups for missed labs but the lowest lab score will be dropped from your final average.

Your lab report will consist of pages from the lab and any supplemental handouts you may be given. Answer the questions in black ink and show your setups and calculations neatly. All calculated answers must have the correct units, the correct number of significant figures and be preceded by a clearly written setup showing the units of each quantity. You will lose credit if you do not show a setup even if an answer is correct. If there is not enough room in the lab manual for setups, then attach a sheet of plain white 8 ½ by 11" paper. When you tear report pages out of lab, trim the ragged edges with scissors to the 8 ½ by 11" size. Graphing of data is required in several reports. Do not use graph paper with ¼ inch spaced lines or other paper designed for English measurements. For full credit, graphs may be handed in if Okayed by the instructor. However, if you do, a hand graph may still be required. Report questions graphs and calculations are worth 15 out of a possible 20 points. Always strive to produce a neat, professional looking document that will reflect well on your ability and attitude toward work in the laboratory.

In addition to the pages from your lab manual, the lab report must be prefaced by a title page and an abstract page either typewritten or legible handwritten (see your instructor) on 8 ½"x 11" white unlined paper. The title page must contain the course name and number, the name and number of the experiment, the date it was performed and your name. The abstract page, which must also be typed, should consist of two of three brief paragraphs stating the name and purpose of the experiment, what was done and the results and conclusions. Briefly describe the experiment without going into detail. Tell what experiments were done and for what reason. Briefly state the results of your experiment. The abstract should be concise, informative and to the point, without unnecessary detail. Make it interesting and inviting to read. Together, the title page and abstract count 5 points toward your lab score. An example of a well written abstract follows:

#### **ABSTRACT**

***Experiment No.9 The Three Stages of Matter was performed in order to study the physical characteristics of solids, liquids, and gases.***

***The compressibility of air was tested using an oil manometer. The density of air was compared to that of water. The ability of water to dissolve the solids sodium chloride, potassium nitrate, benzoic acid, wax and sand was tested. The approximate melting point of each solid was measured on a hot plate.***

***The experiment showed how intermolecular forces affect physical properties. Ionic substances have the highest melting points and nonpolar substances, the lowest.***

Your report must be neat, handed in on time at the next laboratory period, and stapled in the upper left corner with pages in this order: title page, abstract page, report, questions, graphs, other supporting material and finally, data sheets. Unstapled reports are not acceptable. Full credit for lab reports are given only when you meet all the above standards. Late reports are penalized at the discretion of the lab instructor.