

SYLLABUS

CHEMISTRY 103 LAB: Concepts in Chemistry Laboratory (1 credit) Spring 2009

Cedar Crest College
Dr. Hyacinth Vedage

Office: Miller # 1
Phone: 610-606-4666 ext. 3712

OFFICE HOURS: M 1:00 p.m. - 2:00 p.m. T 3:30 p.m. – 5:00 p.m.
W 11:00 a.m. - 12:00 nn R 3:00 p.m. – 5:00 p.m.
F By Appointment Only

→ Prerequisites for this course: Basic Arithmetic and Algebra skills←

REQUIRED MATERIALS:

- Laboratory Manual (departmental publication purchased from the bookstore.)
- Scientific Calculator
- Eye protection (safety glasses or goggles) – Can be purchased from bookstore
- Bound Composition book

Location: Sci. 122 Lab

Meeting Time: There are several lab sections during the week. Please check your registration slip for day/time. List of lab sections are posted outside Sci. 122 lab.

COURSE OBJECTIVES:

There are four objectives for you, the student, in the laboratory:

- to develop the skills necessary to obtain and evaluate data
- to record method/steps and data for future use
- to be able to draw conclusions regarding your results
- to learn to communicate your results critically and knowledgeably

COURSE OUTCOMES:

- the student will demonstrate competence in making detailed observations in the laboratory and in the collection and evaluation of experimental data

The laboratory experiments are given in order that, among other things, the student may learn to be skillful, careful in manipulation, and accurate in observation. These skills are very important especially for a professional in the allied health field.

GRADING SYSTEM:

The grade for this laboratory course will be based on performance with respect to three items: the actual experiments (80%), a final exam (15%), and an evaluation by the instructor (5%).

Each experiment will be graded separately. The grade will be based on: pre-lab quiz of 10 minute duration, experiment report sheets (and graphs, if applicable), and post lab questions. The pre-lab quiz for each experiment will test your preparedness for the day's experiment. In order to do well the student needs to read the introduction to the experiment given in the manual. The quiz will be given at the beginning of the class; thus you are expected to be on time. If you are late more than 5 minutes you will not be able to take the lab quiz and hence lose 10 points.

The grade for each individual experiment will be averaged to produce a single grade. This experimental grade will constitute 80% of the final lab grade. Any laboratory material submitted after the due date will NOT be accepted.

Laboratory notebook will be checked at every lab session. Grading will be noted as S (satisfactory) or U (unsatisfactory). On the first laboratory period you will be given the guidelines for notebook maintenance. Three U notations will result in a loss of 5 points from your Final laboratory grade.

A comprehensive laboratory final exam (written) will constitute 15% of the final laboratory grade.

The remaining 5% of the final laboratory grade will be assigned by your laboratory instructor based on the student's performance with respect to such attributes as:

- compliance with laboratory safety rules
- competence with respect to laboratory techniques
- organization and efficiency when performing experiments
- general attitude in the laboratory and the degree of cooperation and contribution when performing experiments with a partner
- work individually in the evaluation of experimental data at the end of experiment
- ability to read and follow experimental procedure in the manual

The final letter grade will be awarded according to the following scale:

93-100%	A	80-82.9%	B-	67-69.9%	D+
90-92.9%	A-	77-79.9%	C+	60-66.9%	D
87-89.9%	B+	73-76.9%	C	Below 60%	F
83-86.9%	B	70-72.9%	C-		

ATTENDANCE POLICY:

Attendance in the laboratory is **MANDATORY**. All experiments must be completed as scheduled and reports submitted the following laboratory period except for few lab reports that are due the same day. If due to circumstances beyond your control, you are unable to do an experiment at your scheduled time, it may be possible to perform the experiment during another scheduled lab period of the same week. The student should understand that making up missed experiments causes some difficulties. You

may not work in the laboratory alone. Scheduling the make-up lab must be done in cooperation with the instructors involved. An unexcused lab results in a zero for that lab.

Any absence from a laboratory session requires a valid written excuse from;

1. a doctor or dentist, etc. or the school nurse in case of illness or
2. the dean of the students' office in the case of family emergency

Note then if these procedures are not followed, no make-up can be done and the student will receive a zero for the missed lab.

Students are obliged to take the lab final at its scheduled time.

Tentative Laboratory Schedule

<u>WEEK OF</u>	<u>Laboratory</u>
1/19	No Lab
1/26	Orientation: Rules and Regulations Math review, Significant Figures
2/2	Experiment # 1: Determination of Density of a Solid, pg. 6
2/9	Experiment # 2 Qualitative Analysis of a Hydrate, pg. 14
2/16	Experiment # 3: Formula of a Compound, pg. 19
2/23	Experiment # 4: Reactions of Inorganic Compounds, pg. 24
3/2	Experiment # 6: Molar Mass of a Condensable Vapor, Pg. 37
3/9	Spring Break
3/16	Experiment # 7: Acids and Bases: Analysis of Vinegar, pg. 42
3/23	Organic Functional Groups and Nomenclature - Handout
3/30	Experiment # 8: Qualitative Analysis of Organic Compounds, Pg. 47
4/6	Experiment # 10: Polarimetry: Identification of an Carbohydrate, pg. 61
4/13	Experiment # 11: Unsaturation in Fats and Oils, pg. 65
4/20	Lab Final Exam

PHILOSOPHY/CONDUCT/PROTOCOL

**** I fully support the Cedar Crest College Honor Code and Classroom Protocol code so stated in the Customs Book****

Honor Philosophy:

The Cedar Crest College Honor philosophy states that students uphold community standards for academic and social behavior in order to preserve a learning environment dedicated to personal and academic excellence. Upholding community standards is a matter of personal integrity and honor. Individuals who accept the honor or membership in the Cedar Crest College community of scholars pledge to accept responsibility for their actions in all academic and social situations and for the effect their actions may have on other members of the College community.

Community Standards for Academic Conduct

Academic integrity and ethics remain steadfast, withstanding technological change. Cedar Crest College academic standards, therefore, apply to all academic work, including, but not limited to, handwritten or computer-generated documents, video or audio recordings, and telecommunications.

As a student at Cedar Crest College, each student shall:

- Only submit work which is his/her own
- Adhere to the rules of acknowledging outside sources, as defined by the instructor, never plagiarizing or misrepresenting intellectual property.
- Neither seeks nor receives aid from another student, converse with one another when inappropriate, nor use materials not authorized by the instructor.
- Follow the instructions of the professor in any academic situation or environment, including taking of examinations, laboratory procedures, the preparation of papers, properly and respectfully using College facilities and resources, including library and computing resources to ensure that these resources may be effectively shared by all members of the College community.
- Abide by the Cedar Crest Computer Use Policy.
- If a student perceives a violation of the Academic Standards, he/she will go to their instructor.
- If you are unable to resolve the problem with your instructor, you should go to the chair of the department. If you need further assistance after consultation with the instructor and the chair, you should see the Provost.

Behavioral Protocol:

Appropriate classroom behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations and any other behaviors that might disrupt instruction and/or compromise students' access to the Cedar Crest College education. Please be sure to have cell phones in the vibration mode.

Disabilities

Students with documented disabilities who may need academic accommodations should discuss these needs with their professor during the first day of lab. Students with disabilities who wish to request accommodations should contact the Advising Center. Accommodation will be considered only through the Advising Center.