L.A. City College Instructor: Terry Boan

INFORMATION FOR CHEMISTRY 60

Chemistry 60 is a 5-unit course in elementary chemistry. The course includes 3 hours of lecture and one 4-hour laboratory sessions per week. Students should have knowledge of basic algebra with a minimum grade of "C" is the prerequisite. Chemistry 60 is a beginning course in general inorganic chemistry. The course is designed primarily for students who have not had little chemistry training. A minimum grade of "C" in this course is necessary in order to enroll in Chemistry 101.

Required Texts: see instructor
Laboratory Manual for Chemistry 60

Required Materials: Scientific calculator, Safety goggles

Office Hours: before class & after lab.

Contact: boanta@lacitycollege.edu or http://lacc_terryb.com

Attendance:
Attendance will be taken during each class period. Regular attendance is absolutely mandatory in order to pass this course. See Important Dates below. I do not drop students once you have attended class; therefore, it is your responsibility to withdraw from this course. Students who have not dropped this class and have stopped attending, will be assigned a letter grade of "F". **The deadline to drop without a "W" is the last day of Week 2 (of the semester), See dates & deadlines: http://www.lacitycollege.edu/services/admissions/dates.html . If you must drop a course, drop before the specified deadline for dropping a class without a grade of "W." Dropping after Week 2 will result in a "W" on your transcript. Effective since July 1, 2012 students now have just 3 attempts to pass a class. If a student gets a "W" or grade of "D", "F", "I", or "NP" in a class, that will count as an attempt. A student's past record of course attempts district wide will also be considered. Therefore, before the end of Week 2 you should carefully consider if you can reasonably manage this course with the other factors in your life (e.g. work, family, course load). If you think you will not be able to complete this course with a C or better, drop by http://www.lacitycollege.edu/services/admissions/dates.html . If you have any questions, please don't hesitate to talk to me. You may also see a counselor in the Counseling Center. If you are interested in adding the class, you MUST attend every class period to completion in order to be considered for the lottery.**

Course Work and Grading Policy:
One grade will be assigned for Chem. 60. The grade will include both lecture work and laboratory work. Grades will be assigned on the basis of overall percentage of total points earned in both the lecture and the laboratory. If you fail either the lecture or lab portion of the course, the highest grade you may earn is a "D". The lecture percentage will be factored to about 60% of the total grade and the lab is about 40%.

HOMEWORK: Homework is usually given electronically using mastering chemistry or some other electronic homework system. You must attend the first day of class for specific information. Homework will be worth 10% of your grade.
QUIZZES: Quizzes & Activities will not be pre-announced and cannot be taken at any other time. They may be given in Lab or lecture. There will be no make-up quizzes. The quizzes are composed of short essay, multiple choice and word problems based on lecture notes and homework problems.
EXAMS: There will usually be 2 or 3 exams given during the semester worth 100-150 points each followed by a final worth 150+ 50 (lab final) points. There will be no make-up exams. The final will cover everything. **Everyone, regardless of grade at the time, is required to take the final examination. Failure to take the final will result in an automatic fail in this course, regardless of your grade prior to the final.**

The point break-down:

HOMEWORK	100 pts
QUIZZES/Activities	100 pts
EXAMS	500 pts
LECTURE TOTAL	700 pts
Labs	250 pts
Workshops. (10 @ 5 pts each)	55 pts
TOTAL	1005 pts

A letter grade will be assigned based on the total percentage as follows:
A - 88% and above B - 76 to 87% C - 60 to 75% D - 50 to 59 % F - below 50%
If you are interested in your class standing, then use the above scale.

LABORATORY SECTION

Safety is of the utmost importance, you must always comply with the safety rules found in the SAFETY RULES AND REGULATIONS section of your lab manual. Failure to obey these rules will result in your dismissal from this class. Safety goggles are **REQUIRED** at all times in the lab unless otherwise stated by the instructor. If you have not acquired safety goggles by the second week of class then you will not be allowed in the lab until you have them. Attendance is also mandatory for the lab. Laboratory experience can only be attained by actually being present in the lab and actually performing the experiment. If you miss more than 4 labs (12 hours) you will be dropped from the course. **Make sure you have put away all equipment and locked your drawer before leaving!!!**

LAB REPORTS: Lab reports are due one lab period after the completion date of the experiment. Some Experiments are due that lab period, so listen to the instructor. Late reports will be subjected to very heavy late penalties and may not be returned. No reports are graded two weeks after the experiment. **You are responsible for downloading experiments in advance of doing the experiments; no hardcopies will be distributed.**

LAB NOTEBOOK: The lab notebook is used for your raw data and any information that you feel is important. Anyone who does not have the appropriate notebook by the fourth day of class will be excused from the laboratory. All notes must be taken down in the notebook. Pre-labs will be checked at the beginning of each lab. A copy of the lab notes must be stapled to the lab reports for full credit. Below is an explanation of how to write up the lab notebook.

Lab Course Requirements in detail:

Before Lab begins

1) Record Name/Title/Purpose /procedure in notebook (checked at the beginning of lab, 5 pts, & the carbon copy turned in with the lab report) During Lab

2) Collect and record all primary data directly in notebook, you must have the lab notebook signed at the end of each lab day. After all primary data is collected

3) Calculations (neatly written in you lab notebook, the carbon copy turned in)

4) Discussion/Conclusion (neatly written in you lab notebook, the carbon copy turned in)

5) Post-Lab Questions: (neatly written on the sheet)

To do before the lab begins: (you will not be allowed to start the lab if all are not complete)

1. Record the following in your lab notebook:

The second part of the pre-lab consists of filling out the Name/Title/Purpose /procedure in notebook prior to class time. A brief (2 or 3 sentence max) introduction to the experiment that includes the goal of the experiment and the method(s) used must be written neatly in the lab notebook. Do not copy the purpose straight from the lab book!

Example: *Purpose: To determine the percent water in an unknown hydrate salt by repeated heating and weighting a sample.*

Procedure**:** A step-by-step version written in your own words. This should be detailed enough that someone else could use it to replicate the experiment. Complete sentences are not necessary and diagrams can and should be used where appropriate. Tables are often useful for procedural descriptions and can dramatically reduce the length of the procedure section. In this section, you should only mention any changes in the procedure that I told you to make or that were necessary to make due to difficulties

Example: Procedure: Clean
crucible dry to const wt.
w/heating
add about 5g unknown
heat gently 1st, then strongly for 10-15 min
cool-weigh-reheat-cool-weigh-repeat to const wt.

During Lab

2) Collect and record all primary data directly in notebook

Before you leave lab, all relevant measurements and observations must be recorded directly in your laboratory notebook. Include anything noteworthy that you observe such as color and temperature changes, formation of a precipitate, etc. Large collections of data should be organized into tables for clarity. All numerical entries must have appropriate units. Since data sheets tend to be "works in progress" and to be information recorded as the experiment is preformed, they do not need to be perfectly neat, but they should be readable with data always recorded to the correct number of significant figures and with **units**. If you make a mistake recording data cross it out with ONE line. If you have to cross out an entire trial use a large X, and include a brief note as to why you did not include the data. **Don't forget to record the numbers of any unknowns.**

After the lab in complete

3) Sample Calculations

For any and all calculations involved in the experiment, a sample calculation must be show. The sample calculations should clearly show the formula used (if any), the numeric values that were plugged into the formula including units, and the final answer obtained including units. The use of tables for data and calculations is always recommended. This provides a quick and easy way for the grader to find the appropriate information.

4) Discussion/Conclusion

The conclusion should be a paragraph in which you describe the results of the experiment. You should also include any major errors that might have affected your results and any other problems that you encountered during the lab. Keep in mind that the errors you should identify should not only be any mistakes that you know you made (like I spilled the beaker) but also errors due

to the limitations of the chemicals or equipment (such as certain solutions might decompose in sunlight). Discuss what you have learned, and what trends the data may show. If there were no trends, but you thought there should have been, discuss that also. Reflect back to the purpose of the lab -- did the lab accomplish what it set out to do? Why or why not? How could the techniques used, be applied to other situations?

Example-Discussion/Conclusion: The theory involves the neutralization of acids and bases where the moles of acidic hydrogens are equal to the moles of the base used to neutralize it at the equivalence point. Since phenolphthalein was used as an indicator, the end point and the equivalence point are fairly close to each other. All volumes were to measured .01 ml, and the standardized NaOH solution was .1102 M leading to an accuracy for the concentration of acetic acid of .001 M. Our results were slightly higher than the class average, which stands to reason considering many of the end point of other students were flaming red making their results too low. We are therefore confident that our results are accurate since all end points were the slightest pink perceivable.

5) **Post-Lab Questions:** Frequently, additional questions will be assigned. Answer these on the sheet provided in your lab packet and turn in with your lab report. The answers to post lab questions should be in complete sentences.

Late labs will be accepted for two weeks after the due date with a late penalty of 1-point per day it is late. After two weeks, the lab report will no longer be accepted.

****A video will be shown and a test will be given on the first day covering safety issues. Although most of the information is common sense, it is imperative that everyone understands and complies with safety regulations.

General Information:

(1) NOTE: ANYONE FOUND CHEATING WILL RECIEVE AN "F" GRADE FOR THE QUIZ/EXAM AND WILL BE RECOMMENDED TO THE DEAN OF STUDENTS FOR EXPLUSION FROM THE COLLEGE.

(2) STUDENTS WITH DISABILITIES: Students with a verified disability who may need authorized accommodation(s) for this class are encouraged to notify the instructor and the Office of Special Services (SSV 100, 323-953-4000, ext. 2270) as soon as possible, at least two weeks before any exam or quiz. All information will remain confidential.

(3) Financial Aid Information: If you need help paying for books and other college expenses, call the Financial Aid Office at (323) 953-4000 extension 2010, or see them at Student Services Village room 117 http://www.lacitycollege.edu/stusvcs/finaid/

(4) SLO (Student Learning Outcome):

By the end of this course you will be able to solve a stoichiometry problem. Students will be able to correctly interpret the problem, develop a correct solution, and generate a correct answer to the correct number of significant figures. The students will also be able to complete titration practical and lab final focused on laboratory knowledge & techniques.