

LOS ANGELES MISSION COLLEGE

CHEMISTRY 65 Fall 2012

Instructor: Dr. R. Gellert

Lab: 3159 M 6:50 - 10:00 Room : CMS 203

Instructor: Jeanne Cassara

Lab: 3160 W 6:50 - 10:00 Room : CMS 203

LABORATORY WORK

During the laboratory two students will share the contents of the same laboratory locker. Both students are jointly responsible for the contents of their shared locker. The majority (not all) of the experiments are performed in pairs.

However, for every experiment, **each student:**

- 1. Will take active part in the work,**
- 2. Report his/her data individually,**
- 3. Do his/her own calculations,**
- 4. Turn in an individual lab report for grading purposes, and**
- 5. Will be assigned an individual grade for every activity.**

Laboratory Reports are due no later than **one week** from the date experiment was performed (this is to allow working students to meet the deadline). If time permits laboratory report can be completed from your notebook entries and there will be no penalty for turning in the laboratory report at the end of the laboratory period ☺.

Late laboratory reports are graded with a penalty of **10%** per week.

Once the instructor has returned the graded lab reports to the class, lab reports for that particular experiment are no longer accepted for grading.

In order to work efficiently and meet the required deadline for turning in the lab reports, **you must come** to the laboratory well prepared.

This means:

- 1. Read carefully (several times, if needed) the Experiment you will perform (both Principles and Procedure) prior to coming to the lab.**
- 2. Think about what you will be doing and plan ahead.**
- 3. Prepare your Laboratory Notebook in advance (Purpose of the Experiment and the appropriate Data Tables may be prepared in your Laboratory Notebook in advance).**
After the third laboratory session, you may not work in the laboratory if you do not have a Laboratory Notebook!
Please see pages 3 & 4 of this outline about proper usage of your Laboratory Notebook.
- 4. The laboratory portion of the course makes up 25% of your grade:**
A) Laboratory Reports and Unknowns: 12.5%
B) Laboratory Exams: 12.5% (open lab notebook)
There will be two or three Laboratory exams scheduled.
All exams will be of equal weight.

- 5. THERE IS NO MAKE-UP LABORATORY WORK!**

Most Laboratory Experiments are From

(Chem 65 Laboratory: "EVERYDAY CHEMISTRY" by Maria Fenyes, Los Angeles Mission College)
Additional worksheets/exercises and experiments can be downloaded from the C65 MOODLE website for the respective sections.

TENTATIVE LABORATORY SCHEDULE

Week	Monday	Wednesday	Laboratory Experiment/Activity
1	Aug 27		Check-in; Safety Video
		Aug 29	Check-in; Safety Video
2	Sep 3	HOLIDAY	Labor Day (College Closed)
		Sep 5	Ex 1: "What Chemist Do"/Exercise A {Download (DL)}
3	Sep 10		Ex 1: "What Chemist Do"/Exercise A {Download (DL)}
		Sep 12	Ex 5: Physical Properties of Household Liquids (Excel)
4	Sep 17		Ex 5: Physical Properties of Household Liquids (Excel)
		Sep 19	Bunsen Burner (DL); Ex 4: Quant. Sep. of a Mixture
5	Sep 24		Bunsen Burner (DL); Ex 4: Quant. Sep. of a Mixture
		Sep 26	Ex 2: Semi-Quant. Separation of Food Dyes
6	Oct 1		Lab Exam I (Exp. 1, 5, B Burner, 4)
		Oct 3	Lab Exam I (Exp. 1, 5, B Burner, 4, 2)
7	Oct 8		Exercise B – Nomenclature (DL)
		Oct 10	Exercise B – Nomenclature (DL)
8	Oct 15		Ex 10: Combination and Decomposition Reactions
		Oct 17	Ex 10: Combination and Decomposition Reactions
9	Oct 22		Ex 12: Double Replacement Reactions/Writing NIE (DL)
		Oct 24	Ex 12: Double Replacement Reactions/Writing NIE (DL)
10	Oct 29		Ex 11: Single Replacement Reactions
		Oct 31	Ex 11: Single Replacement Reactions
11	Nov 5		Lab Exam 2 (Exc. B, Ex 10-12)
		Nov 7	Lab Exam 2 (Exc. B, Ex 10-12)
12	Nov 12		Veterans Day (College Closed)
		Nov 14	Ex 9: Percentage Copper in Malachite
13	Nov 19		Ex 20: Density of CO ₂
		Nov 21	Ex 20: Density of CO ₂
	Nov 22	--- Nov 25	ThanksGiving Holiday (Campus Closed)
14	Nov 26		Standardization of NaOH/ Unkown Acid Titration (DL)
		Nov 28	Standardization of NaOH/ Unkown Acid Titration (DL)
15	Dec 3		Lab Exam 3 - (Ex 20, Acid/Base Titr.)/Check Out
		Dec 5	Lab Exam 3 - (Exp. 9 20 Acid/Base Titr.)/Check Out

TENTATIVE LABORATORY SCHEDULE**INSTRUCTIONS FOR LABORATORY NOTEBOOK**

Each student must have a **quadrille ruled, sewn** Laboratory Notebook in which to record data and observations, do calculations, and analyze results of the lab work.

The Lab Notebook must be brought with you to every lab session and all data and observations must be recorded **directly into the Notebook** (no where else) **and in ink** (no pencil).

NO PHOTOCOPIES ARE ALLOWED. Laboratory records are legal documents in industry and research. They are required to support patent applications or to resolve disputes or originality of research in a court of law.

You may write on both left and right hand side pages.

Begin with a **TITLE PAGE** State the course, section number, semester, the instructor's name, your name and your locker number.

The second page is the **Table of Contents**. As you do each experiment, list it by title and enter the numbers of the pages containing text for it. Leave a second page for continuation of the TOC. At the bottom of the second index page, give the **complete bibliographic information** for the laboratory text used. (Title, author, publisher, date.) When you do this you can cite a reference simply by "Text"; otherwise you must cite the complete reference each time.

The remainder of the Notebook should be **numbered sequentially in the upper right corner of the pages**.

The **FORMAT** of the pages for each lab experiment is as follows:

TITLE:	Here you enter the title of experiment, and DATE PERFORMED!	Page Number: <u>##</u>
PURPOSE:	Write a short statement (one or two sentences, in your own words) indicating the purpose or the goal of the experiment.	
PROCEDURE:	Cite a reference to the appropriate text(s). Any changes made by the instructor may be noted on the left-hand side of the page.	
DATA and/or OBSERVATIONS:	Prepare a data table in which you will record the measurements you make in the lab. The lab Report Form often will provide a good format but it is wise to check with the instructor about the amount of space to be allowed when observations, rather than measurements, are to be recorded. Be careful to indicate units wherever appropriate.	
RESULTS:	May be given in table form, and contains the final answers to any required calculations. All work (i.e., set-ups for all <u>calculations</u>) must be shown in this section.	
CONCLUSIONS:	Essentially, your conclusions should answer the Purpose or the Goal of the Experiment. Write a few words for this section, indicating any experimental errors and their effects it may have on your results. Also state whether or not you achieved the purpose of the experiment.	

As you work, enter your Data/Observations **in ink**. If you make an error or repeat an exercise, **DO NOT ERASE ANYTHING**. You may draw a line through the offending information and then enter the new value. If the entire page is in error, simply draw a diagonal line through the page and fold the page in half vertically.

NEVER TEAR OUT A PAGE (the other half of the sewn page will fall out as well).

NOTEBOOKS WILL BE COLLECTED FOR GRADING! BE PREPARED TO SHOW YOUR NOTEBOOK TO YOUR INSTRUCTOR AT ANY TIME!

Additional Information about the proper usage of the Laboratory Notebook may be found in Appendix II of the Laboratory Manual used for this course. ("Everyday Chemistry" by Maria Fenyes, Los Angeles Mission College)