

Chemistry 30A Laboratory Greensheet -- Fall 2005

SECTION 1

T/R 12-12:50pm Lecture—Sci 142

Instructor: Dr. Maureen Scharberg

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Office hours: Tues 10:30-11:30am;

Thurs 9-9:45am; or by appointment

SECTION 2

T/R 2:30-3:20pm Lecture -Sci 164

Instructor: Dr. Resa Kelly

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Office Hours: Tues 11am-12noon;

Thurs 10-11am; or by appointment

YOU MUST BE ENROLLED IN BOTH THE LECTURE AND A LABORATORY
TO RECEIVE CREDIT FOR THIS COURSE!!

This laboratory stresses consumer-microscale experiments for non-science major general chemistry. Many experiments involve items that are found in your household. Micro-scale or using small amounts of reagents is extremely practical when one considers the costs of purchasing and disposing reagents. It's an environmentally friendly technique!!

IMPORTANT MESSAGES

ALL STUDENTS WILL BE REQUIRED TO PASS A SAFETY QUIZ!!

ALL LABS AND LABORATORY REPORTS MUST BE COMPLETED TO PASS THIS COURSE.
THERE ARE NO EXCEPTIONS!!

SOME OF THE EXPERIMENTS HAVE PRE-LAB EXERCISES -- IT IS YOUR
RESPONSIBILITY TO COMPLETE THESE EXERCISES *BEFORE* YOUR WEEKLY LAB
SESSION OR YOU WON'T RECEIVE CREDIT FOR THESE EXERCISES!!!

REQUIRED LAB TEXTBOOK:

1. Scharberg, Maureen. "Chemistry 30A Laboratory Manual", Fall 2004 Edition. (REQUIRED)
Purchase from SAACS in DH 504.

Attendance: The laboratory for Chemistry 30A meets once a week for three hours. Attendance is mandatory for successful completion of Chemistry 30A. Missed laboratory periods may only be made up with permission of the laboratory instructor, and only during the week for that particular experiment. To make-up a lab, you must obtain a signed pink make-up slip. This slip must be signed by your lab instructor, Dr. Scharberg or Dr. Kelly. Please note that your lab instructor will not accept more than one make-up lab unless Dr. Scharberg or Dr. Kelly signs the pink slip. That means, that if you have already made up one lab outside your regularly scheduled lab, you cannot make up a second lab unless Dr. Scharberg or Dr. Kelly signs the pink slip. This make-up request must be fully documented and supported by Dr. Scharberg or Dr. Kelly.

Safety Quiz: During the first weeks of lab, you will receive safety instruction and take a safety quiz. You must pass the safety quiz with a score of 80% or better to remain in the class. If you fail the safety quiz the first time, you must arrange to take it again with your lab instructor or Dr. Scharberg before the salt/sand experiment. If you fail to pass the safety quiz a second time, you will be instructor-dropped from the class.

Administration of Unit Quizzes.

The Unit Quizzes will consist mainly of multiple choice questions which emphasize the objectives of the Units. For Units 2-7 and 9-12 quizzes, there will be twenty 2-point questions for that specific unit, and five 2-point questions from the previous unit. For example, Unit 2 quiz will consist of twenty questions from Week 2 material and five questions from Week 1 material. You will need a No. 2 pencil for the Units Tests. Unit 1 quiz will consist of twenty questions. These quizzes will be administered during the first 30 minutes of your scheduled laboratory period. See the attached schedule and the laboratory greensheet. The material for Unit 8 and Unit 14 will be covered on the midterm and final exam, respectively.

Note: You may not take unit quizzes outside of your regular scheduled laboratory time without written permission using a pink laboratory make-up permission slip. Failure to comply will affect your final grade.

Academic Conduct during Quizzes in DH 601:

- All notes should be placed on the floor.
- All backpacks on the floor and zipped up.
- No talking or whispering during the quiz.
- No sharing calculators or Periodic Tables.
- Do not WRITE on the quizzes!!
- Failure to comply with these conduct rules will result in your lab instructor giving you zero points for the quiz.
- Willful conveying of quiz information and/or taking quizzes will result in failing Chem 30A.
- All incidences of academic misconduct will be reported to Judicial Affairs.

Special Unit 13 Quiz: Due to the Fall 2005 calendar, Unit 13 quiz will be a take-home quiz that will be distributed to you (along with a scantron) at the beginning of lecture on Tuesday, December 6. No quizzes will be distributed outside lecture after class. To receive a Unit 13 quiz score, you must turn in your bubbled-in scantron at the beginning of lecture on Thursday, December 8. You may work with your Chem 30A friends on this quiz. No make-up quizzes will be given.

Pre-Laboratory Pop Quizzes: Six un-announced pre-laboratory pop quizzes (5 points each) will be given as part of the Unit Tests. At the end of the semester, one quiz will be dropped. To prepare for these quizzes, simply read the assigned experiment(s) for that day!!

Post-Laboratory Discussions (5 points each): For five of the laboratories, a post-laboratory activity will occur. Each lab bench will be given a worksheet to complete. This worksheet will be

handed to your lab instructor approximately 45 minutes before the end of lab. Your lab instructor will use these worksheets to facilitate a post-laboratory discussion. The goals of this discussion are to answer any questions that may have arisen during the laboratory and to confirm your understanding of the important concepts/topics of the laboratory. It is to your benefit to actively participate in this activity.

DISABLED STUDENTS: Any student with a pre-existing disability requiring an accommodation (as documented by the Disability Resource Center) should make this need known to the instructor during the first two weeks of classes. Every effort will be made to accommodate your needs.

Academic Dishonesty. STUDENT CODE OF CONDUCT: You should be familiar with new Student Code of Conduct and Academic Integrity Policy which can be found at http://sa.sjsu.edu/judicial_affairs/index.html.

Please review Section 1.0 (Definitions of Academic Dishonesty) which includes Section 1.1 Cheating and Section 1.2 Plagiarism. This document will be reviewed in the laboratory sections. If you have any questions regarding plagiarism, the library has an excellent on-line tutorial that can be found at <http://tutorials.sjlibrary.org/plagiarism/index.htm>.

Plagiarism, word-for-word, copying of another person's words without proper citation (quotation marks and a clear literature reference), is a serious form of academic dishonesty. Therefore, do not copy another student's lab report !!! --LAB REPORTS WILL BE CHECKED WITH YOUR PARTNER'S LAB REPORTS--IF THE WRITTEN ANSWERS, NOT THE FORMULA OR NUMERICAL ANSWERS, ARE EXACTLY ALIKE, BOTH STUDENTS WILL RECEIVE NO CREDIT FOR THE ENTIRE LAB REPORT!!

Do not jeopardize your college career by cheating! Dismissal from the class with a grade of F will result from cheating on quizzes/lab reports, failure to submit answer cards for unit quizzes to lab instructors on time, copying quiz questions or answers, retaking an identical test for credit, transferring information and/or quiz/lab report answers to other students.

Emergency and Evacuations. If you hear a continuously sounding alarm or are told to evacuate by Emergency Coordinators (colored badge identification), walk quickly to the nearest stairway (end of each hall). Take your personal belongings as you may not be allowed to immediately return. Follow instructions of Emergency Coordinators. Be quiet so you can hear. Once outside, move away from the building. Do not return to the building unless the Police or Emergency Coordinators announce you may.

LABORATORY SAFETY: You should read the safety section of the SJSU Catalog under Chemistry Department. Note in particular: "**Failure to comply with proper procedures and prescribed safety cautions shall subject the student to disciplinary action.** 1. Any student who engages in unauthorized experimentation, or who seriously disregards safety, thereby endangering self or others shall be withdrawn immediately from the class with a grade of F. 2. Any student who shows persistent disregard for safety may have his/her grade lowered, and may risk being withdrawn with a final grade of F."

Laboratory Evaluation and Grading (605 points):

A. Laboratory Reports (475 points).

1. The point break down for each lab is provided on the last page of this greensheet.
2. To be prepared for the laboratory, READ the experiment before coming to your laboratory session. You should note that some experiments have pre-lab assignments.
3. In most experiments, you will have the option to work in small groups or individually.

B. Pre-lab Pop Quizzes: (25 points)

C. Post-Laboratory Discussion Sheets: (25 points)

D. Subjective Laboratory Evaluation (80 points). Below are listed some qualities that will be used in a subjective evaluation of your laboratory performance.

1. Laboratory attendance. *Leaving your laboratory session early without completing your experiment will lower your grade.*
2. Punctuality---on time to lab.
3. Attentiveness during lab, lecture, and discussion.
4. Improper conduct--cheating, safety violations, etc.
5. General attitude.
6. Effort and utilization of time.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AUG	22	23	24 Confirm lab space	25 Confirm lab space	26 Confirm lab space
SEP	29 <u>Week 1</u> Safety Quiz Check In	30	31	1	2
OCT	5 Labor Day*	6 <u>Week 2</u> Sand/Salt, Unit 1 Quiz	7	8	9
NOV	12 <u>Week 3</u> Densities Unit 2 Quiz	13	14	15	16
	19 <u>Week 4</u> Plastics, Antifreeze Unit 3 Quiz	20	21	22	23
DEC	26 <u>Week 5</u> Epsom Salts Unit 4 Quiz	27	28	29	30
JAN	3 <u>Week 6</u> Nuclear Chemistry Unit 5 Quiz	4	5	6	7
	10 <u>Week 7</u> Observe Chemical Rxns Unit 6 Quiz	11	12	13	14
	17 <u>Week 8</u> Precipitation; Unit 7 Quiz	18	19	20	21
	24 <u>Week 9</u> Oxygen Demo Midterm.	25	26	27	28
FEB	31 <u>Week 10</u> H ₂ Demo, Activity Series; Unit 9 Quiz	1	2	3	4
MAR	7 <u>Week 11</u> Soap Scum Unit 10 Quiz	8	9	10	11
APR	14 <u>Week 12</u> Solutions Unit 11 Quiz	15	16	17	18
	21 No Labs	22 No Labs (In-Lecture Lab)	23 No Labs	24 Thanksgiving	25 Holiday
MAY	28 <u>Week 14</u> Vinegar Titration Unit 12 Qz, Check Out	29	30	1	2
	5 No Labs	6 No Labs	7 No Labs	8 No Labs	9 No Labs

* This Monday lab section(s) will make up Unit 1 Quiz during this week and obtain data from

salt/sand lab. (Lab instructor will provide instructions).

<u>Week</u>	<u>Chem 30A Experiment(s) and Point Breakdown</u>
1	Check In/Safety Quiz (20 points)
2	Sand/Salt Separation (24 points)
3	How do you calculate densities? (68 points)
4	Can We Identify Plastics By Using Their Different Densities? (27 points) Should You Worry About the Density of Your Car's Antifreeze/Water Mixture? (12 points) 🍏
5	How much water is in Epsom salts? (23 points) 🍏
6	Nuclear Chemistry (30 points)
7	Observing Chemical Reactions and Patterns? (23 points) Demonstration of chemical reactions. (22 points)
8	Worksheet on Types of Reactions & Balancing Reactions. (30 points) Discovering Precipitation Reactions (31 points) 🍏
9	Oxygen demonstration. (30 points)
10	Are Some Metals More Active Than Others? (23 points) Hydrogen demonstration. (20 points) 🍏
11	Water Hardness & Soap Scum. (25 points)
12	Exploring the Properties of Solutions and Distillation demonstration. (39 points) 🍏
13	Net Ionic Equations (in lecture lab) (20 points)
14	Vinegar Titration. (25 points)

🍏 denotes Post-Laboratory Discussion in this Laboratory