

Chemistry 2 – General Chemistry Laboratory*

Spring Semester 2014 – Tentative Schedule

Room G3 Schrenk Hall

Monday 2:00-5:00pm – Sections A1, A2, (A3), B1, B2

Tuesday 2:00-5:00pm – Sections C1, C2, (C3)

Wednesday 2:00-5:00pm – Sections E1, E2, (E3), F1, F2

Thursday 2:00-5:00pm – Sections G1, G2, (G3)

Students: Please read this carefully. Keep this sheet for reference.

Lab Date	Experiment	Page #	Due Date
Jan. 20	NO LAB – Martin Luther King Jr. Birthday – Makeup Session incl. with Jan 27		N / A
Jan. 21,22,23,24&27	1. Safety / Glassware / Check-In / MSDS	1-14 & Handouts	Jan. 28,29,30&Feb.3
	2. Graphing	Handout	Jan. 28,29,30&Feb.10
	Homework: Dimensional Analysis Problem Set #1	15-24	Jan. 28,29,30&Feb.10
Jan. 27,28,29,30	Significant Figures Review	35-52 & Handout	Feb. 3,4,5,6
	Nomenclature Review	Handout	Feb. 3,4,5,6
Feb. 3,4,5,6	3. Zinc & Statistics & DA #2&3	53-76; 24-28	Feb. 10,11,12,13
Feb. 10,11,12,13	4. Empirical Formula	77-94	Feb. 17,18,19,20
	& Oxidation/Reduction	Handout	Feb. 17,18,19,20
Feb. 17,18,19,20	5. Ternary Mixture	95-116	Feb. 24,25,26,27
Feb. 24,25,26,27	6. Mystery of 13 Test Tubes	117-130	Feb. 24,25,26,27
Mar. 3,4,5,6	Mid-Term Exam (Covers Labs 1-6 & MSDS, Safety)	---	N / A
Mar. 10-14	NO LAB – Spring Recess	---	N / A
Mar. 17,18,19,20	** 7. Thermochemistry & DA #4&5	Ch #1; 28-34	Mar. 31, Apr. 1,2,3
Mar. 22-30	NO LAB – Spring Break	---	N / A
Mar. 31, Apr. 1,2,3	8. Antacid Analysis & EM Spectra Review	Ch #3; Handout	Apr. 7,8,9,10
Apr. 7,8,9,10	9. Colorimetry	Ch #4	Apr. 14,15,16,17
Apr. 14,15,16,17	10. Radiochemistry & Nuclear Decay	Ch #2	Apr. 21,22,23,24
Apr. 21,22,23,24	11. Dilutions / Beer's Law	Ch #5	Apr. 28,29,30-May 1
Apr. 28,29,30-May 1	12. Gas Laws	Ch #7	Apr. 28,29,30-May 1
May 5,6,7,8	Final Exam (Labs 7-12, MSDS, Safety) / Check-Out	---	N / A
May 12-16	No Laboratory – Final Exam Week	---	N / A

***Chem 1:** Students must have previously taken, received credit for or be concurrently enrolled in Chem 1 in order to take Chem 2. If at any point you decide to drop Chem 1, you need to contact Dr. Bolon prior to having your Chem 1 instructor sign your paperwork. If at any time in the semester it is determined that you have NOT met this prerequisite you will be dropped from Chem 2. The last day to drop is April 18, 2014.

***Chem 4:** Students who have not already passed and received credit for Chemistry 4 – Introduction to Laboratory Safety and Hazardous Materials, are required to take and pass Chem 4 at the beginning of the semester. Do NOT wait for completion of Chem 4 before attending the above scheduled Chem 2 labs. If you do NOT or have NOT passed Chem 4 by February 18, 2013, then you will be dropped from Chem 2.

****Textbooks:** Page numbers correspond to Chemistry 002 Lab Manual, 4th ed. available at either local bookstore and must be purchased prior to your class Jan. 27,28,29,30, 2013. Chapters refer to Chem 002 Laboratory Packet 2010-2011. Lab Packets must be purchased prior to the Thermochemistry experiment (Mar.18-21). They may be purchased for \$10.00 (cash or check) from the Chemistry Office – Room 142 Schrenk Hall. **They are available now.**

Safety Goggles (ANSI Z87.1): According to the laws of the State of Missouri, **safety goggles must be worn at all times** while working in the laboratory. Failure to wear safety goggles while in the laboratory may result in your removal from the laboratory. Students *must* obtain appropriate safety goggles prior to the first lab (Feb. 3,4,5,6, 2013) and bring them to that lab and all subsequent labs.

Appropriate Attire: You must wear closed-toe shoes. You must wear long pants or long skirts or wear a lab apron. If you are NOT dressed appropriately, you will be required to leave the lab until you are dressed appropriately.

Chem 2 Information is available at the following website: <http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html>

Objectives

Students who successfully complete this course will be able to:

1. Demonstrate knowledge of chemistry and laboratory principles.
2. Apply mathematical and statistical equations to solve chemical problems.
3. Evaluate chemical problems and design appropriate chemical procedures to solve those problems.

Behavioral Expectations

For this class, you are expected to:

1. **Show respect** for your fellow students, your faculty & staff, and yourself.
2. **Be in the lecture hall**, ready for class at the scheduled time.
 - a. **Have completed laboratory reports, lab books, pen, calculator, MS&T id, goggles.** and any other specified material with you and ready to use.
 - b. You will also need: **paper towels and colored pencils, markers or crayons.**
3. **Complete Materials Safety Data Sheets (MSDS).** **Due in class Jan. 27-29-Feb. 3.**
 - a. Prior to doing any of these experiments, you will be required to sign a form indicating that you have read and understood the hazards of the materials involved in each of these experiments. You can determine the hazards of each material involved in a given experiment by going to the Chem 2 website, <http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html> where clicking on "MSDS Databases" will take you to reliable MSDS links.
4. **Turn in weekly lab reports.** When turning in your lab reports, please refer to the following:
 - a. Each student must turn in their own original work. Original datasheets from the book must be included.
(*Note: If anyone resubmits your work as their own, you will both receive a zero for the assignment.*)
 - b. Write your **name, section number, and date** in the space provided or in the top right hand corner.
 - c. Completed lab reports. These are due at the beginning of your class session, the week indicated on the syllabus.
 - d. Data must be completed in **black or blue pen** on the lab report prior to receiving TA signature on the day of the experiment.
 - e. Lab reports where the data is completed in pencil will NOT be accepted – regardless of TA signature.
 - f. **Late work will be accepted.**
 1. ALL late work must be turned in to the **Chem 2 Mailbox next to the stockroom window** to receive credit.
(*That means: Late reports given directly to your TA will receive zero credit.*)
 2. Penalty for late lab reports: 2 points will be deducted each day late for 5 days, excluding weekends.
 3. Lab reports that are more than one week late will need a written explanation of why they are late; however, they will still be accepted with a maximum of -10 late points.
5. **Complete Assigned Homework.**
 - a. Homework may be completed in **pen or pencil.**
 - b. Each student must show handwritten work for **dimensional analysis** problems. (*Answers only will receive zero credit.*)
 - c. Late homework is **not subject to late points.** It must be turned in to the Chem 2 Mailbox to receive credit.
6. **Complete Prelab Quizzes.**
 - a. A quiz over the reading assignment will be given at the **beginning of each class.**
 - b. If you arrive after all of the quizzes have been turned in, then you will receive a zero for the quiz.
 - c. If you arrive after all of the quizzes have been turned in, then you need to check in with a TA to verify your attendance; otherwise you will be counted absent for the day.
7. **Attend the lecture** at the beginning of each lab.
 - a. If you do not attend the lecture portion, you will not be allowed to attend the lab portion of the class and you will receive a zero for that lab session.
 - b. If you do attend the lab without attending the lecture and submit a lab report, it will not be accepted and you will receive a zero for that lab report.
8. **Notify both your TA & Dr. Bolon if you are going to be absent.**
 - a. Notify them as soon as you become aware of an expected event which will cause you to be absent or as soon after an unexpected event as possible.
 - b. Absences are excused for officially sanctioned MS&T trips – athletic competitions, conferences, etc. Alternate arrangements will be made for missed labs. If you are unable to make-up a lab during the scheduled week, the missed lab and corresponding quiz(zes) will not count against your final grade. Missed exams will need to be rescheduled and should be completed as soon as possible.
(*Note : If you are absent, you are not permitted to use your lab partner's data. Alternate data will be provided.*)
 - c. For illness. You are required to go to Student Health or have a doctor's note, if you want an excused absence. Students who do not have a confirmed illness will receive an unexcused absence.
 - d. Unexcused absences will receive a zero for the day's assignments.

Grading Procedures

The following grading system will be used to determine the grades in Chemistry 2 Spring Semester 2014.

12 Laboratory Reports (50 pts each)	600 pts
11 Lab Quizzes (15 pts each)	165 pts
MSDS – Signed and Returned	50 pts
Assignments & Homework	185 pts
Midterm Exam*	200 pts
Final Exam*	300 pts
<hr/> Total Points	<hr/> 1500 pts

*Midterm Exam, Final Exam and final grades may be curved. This is to compensate for any variance in grading standards used by the graders of the different sections. The grading scale is as follows: **90-100% = A, 80-89.5% = B, 70-79.5% = C, 60-69.5% = D, <59.5% = F.**

If you have any questions during the semester, please do not hesitate to contact me at bolonc@mst.edu anytime or you may call: 341-4439. If I am not available when you call, I will return your call as soon as possible. Thank you – Cyndie Bolon