# Chemistry 1319 – General Chemistry Laboratory\* Spring Semester 2016 – Tentative Schedule for B1, B2, D1, D2, F1, F2

Lecture Room 206 IDE Bldg – Lab Room 201 Schrenk

Tuesday 1:00-4:00pm – Sections A1, A2, B1, B2 Wednesday 1:00-4:00pm – Sections C1, C2, D1, D2 Thursday 1:00-4:00pm – Sections E1, E2, F1, F2

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

Lab Date	Experiment	Page #	Due Date
Jan. 19,20,21	1. Check-In / Room Quiz / MSDS / Graphing	P: 5-40	Feb. 2,3,4
	Glassware	Handout	"
	Safety	T: 1-14	" "
	Dimensional Analysis Problem Set #1	T: 15-24	" "
Jan. 26,27,28	2. Nomenclature Review	P: 41-68	Feb. 2,3,4
Feb. 2,3,4	3. Statistical Analysis of Zinc Washers	T: 53-76	Feb. 16,17,18
	Scientific Notation & Significant Figures	T: 35-52	<b>66 66</b>
Feb. 9,10,11	4. Lewis Dot Activity	Handout	Feb. 16,17,18
Feb. 16,17,18	5. Empirical Formula	T: 77-94	Mar. 3,4,5
	<u>&amp;</u> DA #2&3	T: 24-28	
Feb. 23,24,25	6. Oxidation/Reduction	P: 69-78	Mar. 3,4,5
	& Solubility Activity	Handout	· · · · · ·
Mar. 3,4,5	7. Mystery of 13 Test Tubes	T: 117-130	Mar. 8,9,10
	+ 2 Additional Chemicals	P: 211-218	
Mar. 8,9,10 (2pm in 206 IDE)	Mid-Term Exam (Covers Labs 1-6 & MSDS, So	afety)	N/A
Mar. 15,16,17	8. Forensics & Paper Chromatography		Apr. 5,6,7
Mar. 22-24	9. Studies of Light	Handout	Apr. 5,6,7
Mar. 29,30,31	NO LAB – Spring Break		N/A
Apr. 5,6,7	10. Thermochemistry	P: 79-98	Apr. 12,13,14
Apr. 12,13,14	11. Radiochemistry & Nuclear Decay	P: 115-132	Apr. 26,27,28
Apr. 19,20,21	13. Millikan Drop Activity	Handout	May 3,4,5
Apr. 26,27,28	12. Antacid Analysis	P: 99-114;	May 3,4,5
	<u>&amp;</u> DA #4&5	T: 28-34	cc cc
May 3,4,5	Final Exam / Check-Out (Covers Labs 8-13, MSDS, Safety)		N/A
May 10-12	No Laboratory – Final Exam Week		N/A
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<sup>\*</sup>Chem 1310: Students must have previously taken, received credit for or be concurrently enrolled in Chem 1310 in order to take Chem 1319. If at any point you decide to drop Chem 1310, you need to contact Dr. Bolon prior to having your Chem 1310 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 1319. The last day to drop is April 15, 2016.

**Safety Goggles (ANSI Z87.1):** According to the laws of the State of Missouri, <u>safety goggles must be worn at all times</u> 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 (January 26-28, 2016) and bring them to that lab and all subsequent labs.

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

Chem 1319 Information is available at the following website: <a href="http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html">http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html</a>

<sup>\*</sup>Chem 1100: Students who have <u>not</u> already passed and received credit for Chemistry 1100 – Introduction to Laboratory Safety and Hazardous Materials, are required to take and pass Chem 1100 at the beginning of the semester. Do <u>NOT</u> wait for completion of Chem 1100 before attending the above scheduled Chem 1319 labs. If you do <u>NOT</u> or have <u>NOT</u> passed Chem 1100 by <u>February 12, 2016</u>, then you will be dropped from Chem 1319.

<sup>\*\*</sup>Textbooks: Page numbers correspond to Chemistry 002 Lab Manual, 4<sup>th</sup> ed. available at either local bookstore and must be purchased prior to your class Jan. 26-28, 2016. Chapters refer to Chem 1319 Laboratory Packet 2014-2015 Lab Packets must be obtained prior to the Graphing Lab experiment (Jan 20-22). This semester there will be no charge for lab packets.

## **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 January 26-28, 2016.

- a. Prior to doing any of these experiments, you will be required to sign a form indicating that you have read and understood the hazardous 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, <a href="http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html">http://web.mst.edu/~tbone/Subjects/TBone/Chem2.html</a> where clicking on "MSDS Databases" will take you to reliable MSDS links.
- **4. Turn in bi-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.

(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 <u>black or blue pen</u> on the lab report prior to receiving TA signature on the day of the lab.
- 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. <u>ALL</u> late work <u>must</u> be turned in to the <u>Chem 1319 Mailbox outside the stockroom, to the PLAs at Chem 1319 LEAD or to Kyle Anderson or Dr. Bolon in order to receive credit.</u>

(That means: Late reports given directly to your TA will receive zero credit.)

- 2. Penalty for late lab reports: 1 point will be deducted each day late for 10 days, excluding weekends.
- 3. Lab reports that are <u>more than two weeks late</u> 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.
- 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 "in class" experiment.
  - 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.

- 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 1319 Spring Semester 2016.

14 Laboratory Reports (50 pts each)	700 pts
7 In Class Quizzes (15 pts each)	105 pts
MSDS – Signed and Returned	50 pts
Homework Assignments	145 pts
Midterm Exam*	200 pts
Final Exam*	300 pts
Total Points	1500 pts

\*Midterm Exam, Final Exam and final grades  $\underline{may}$  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 <u>bolonc@mst.edu</u> 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