Course Title/Number	**Principles of Chemistry Laboratory I / CHM 217** **Sections 109 & 110**
Semester/Year	Fall 2015
Days/Time	2:00-4:50 PM Thursday
Location	465 Science Hall (pre-lab lecture), 474/476 (laboratory)
Instructor	Dr. Laura McCunn-Jordan ***PLEASE CALL ME DR. MCCUNN*
Office	466 Science Hall; research lab: 404 Science Hall
Phone	(304) 696-2319
E-Mail	mccunn@marshall.edu
Office Hours	1:30-4:00 PM Monday and Wednesday; other times by appointment. I welcome drop-in visits, but I am not always available outside of office hours. Simple questions can be answered via email.
University Policies	By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on "Marshall University Policies." Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802 Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Course Description:

A laboratory course that demonstrates the application of concepts introduced in CHM 211. 2.00 credits. Corequisite or prerequisite: CHM 211

Required Texts, Additional Reading, and Other Materials

1. CHM 217 Lab Manual
2. access to MU Online and a Marshall email account
3. composition notebook (*not spiral-bound*) and blue/black ink pen
4. indirectly vented chemical safety goggles
5. combination lock for lab drawer
6. roll of paper towels for cleanup
7. non-programmable calculator for tests and exams (it must not have keys for the alphabet)
8. ACS academic lab safety guide
   http://www.acs.org/content/dam/acsorg/about/governance/committees/chemicalsafety/publications/safety-in-academic-chemistry-laboratories-students.pdf

Student Learning Outcomes	How students will practice each outcome in this course	How each outcome will be assessed in this course
Students will know and follow safety rules in the chemical laboratory.	• safety training at MU Online • reading laboratory manual	• online safety quiz • midterm and final exams • instructor's evaluation
Students will learn how to properly use and care for laboratory equipment.	• reading laboratory manual • prelab lecture • laboratory experiments	• lab reports • instructor's evaluation
Students will learn how to record and communicate laboratory experiments and results.	• reading laboratory manual • prelab lecture • laboratory experiments	• lab notebook • lab reports
Students will apply concepts introduced in chemistry lecture (CHM 211).	• reading laboratory manual • laboratory experiments • laboratory calculations	• pre- and postlab questions • midterm and final exams

Grading Policy

lab notebook	150	points
prelab quizzes*	50	points
lab reports (including postlab questions)*	495	points
checkout (end of semester)	5	points
midterm exam	100	points
final exam	150	points
instructor's evaluation of student performance**	50	points
	1000	**TOTAL POINTS**

*Your lowest lab report grade and your lowest quiz grade of the semester will be dropped, as described in the Attendance Policy. Lab reports and postlab questions must be submitted before the end of prelab lecture. Late reports will not be accepted without a university-approved excuse or prior approval from the instructor.

**The instructor's evaluation of student performance will be based on observation of safety rules and proper maintenance of laboratory facilities. Students may lose these points for offenses such as, but not limited to: tardiness, improper waste disposal, safety violations, leaving a mess on the balances, failure to return/store lab equipment before leaving lab.

Grading Scale A: 90-100%, B: 80-89%, C: 70-79%, D: 60-69%, F: 0-59%
The percentage of total points earned will be rounded to the nearest whole percentage. If you believe there has been an error in the grading of your work, please consult Dr. McCunn.

Attendance Policy

Attendance is required to complete and receive credit for experiments. The Department of Chemistry policy requires that all students complete at least 75% of laboratories. Students will receive a grade of "F" for missing 4 or more laboratories, whether they are excused or unexcused absences. Students with excused absences must contact the instructor as soon as they are permitted to return to campus in order to schedule a make-up lab. Do not wait until the following week's lab to make arrangements. If you anticipate missing a lab, notify the instructor as soon as possible. It may be possible to make *prior arrangements* to complete the lab in the same week with a different section and instructor. *Permission from Dr. McCunn and the alternate instructor is required.* If class is cancelled unexpectedly, scheduled assignments will be due and scheduled tests will be given during the next class meeting.

Each student's lowest quiz grade and lowest experiment grade will be dropped from their overall grade. Students with unexcused absences will not be allowed to make up the missed work at a later time because of this policy. More than one unexcused absence will adversely affect a student's grade. Students who are absent (unexcused) from lab and wish to turn in their report from the previous week must email it to Dr. McCunn before the time 30 minutes after the start of class.

Lab Safety

The safety rules for the laboratory are outlined in your lab manual. Safety training must be completed at MU Online prior to the given deadline or the student will be denied admission to the lab. Proper clothing is of the utmost importance. This means that legs should be covered down past the knees (pants are best) and bare midriffs are forbidden. Shoes must completely cover feet, including the top of the foot. (No ballet flats or sandals.) If your attire is unsafe, points may be deducted from your grade and you must change before entering the lab. Any reckless disregard for safety (horseplay, frequent/willful lapses in wearing of goggles, etc.) may result in dismissal from the lab and failure of the course. Cell phones, MP3 players and similar electronic devices should not be used while in the lab. Students who are tardy and miss safety briefings in prelab lecture may be denied entry to lab that day.

Miscellaneous Policies

Use of cell phones / PDAs / MP3 players and similar devices during tests and exams will be considered as cheating. The only materials permitted during a test are a non-programmable calculator, pen/pencil, and those provided by the instructor. Class announcements may occasionally be made via email to your university email address. Please check it on a regular basis. Supplemental course materials and due dates will be posted at MU Online.

Course Schedule

Date	Experiment #	Topic
8/27	1	Lab check-in & Density of Water
9/3	1	Density of Solutions
9/10	2	Separating Mixture Components
9/17	3	Determination of the Percent Oxygen in Air
9/24	4	Determination of an Empirical Formula
10/1	5	Determination of Avogadro's Number
10/8	8	Reactions
10/15	7 / **Midterm Exam**	Synthesis of an Alum
10/22	6	Heat of Reaction and Heat of Solution
10/29	9	Titration of Vinegar
10/30	last day to withdraw from full-semester courses	
11/5	10	Combustion – Synthesis and Reactions of Oxygen
11/12	12	Energy of a Peanut: Calorimetry
11/19	11	Molecular Architecture
11/26	no class, Thanksgiving Break	
12/3	lab check-out / **Final Exam**	