Course	Principles of Chemistry Laboratory I / CHM 217	
Title/Number	Sections 101 & 102	
Semester/Year	Fall 2013	
Days/Time	8:00-10:50 AM Tuesday	
Location	473 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	Monday and Wednesday 9:00-11:30 AM, or 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 <a href="https://www.marshall.edu/academic-affairs">www.marshall.edu/academic-affairs</a> and clicking on "Marshall University Policies." Or, you can access the policies directly by going to <a href="https://www.marshall.edu/academic-affairs/?page_id=802">http://www.marshall.edu/academic-affairs/?page_id=802</a>	
	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. roll of paper towels for cleanup
- 6. non-programmable calculator for tests and exams (it must not have keys for the alphabet)
- 7. ACS academic lab safety guide <a href="http://portal.acs.org/portal/PublicWebSite/about/governance/committees/chemicalsafety/publications/WPCP\_012294">http://portal.acs.org/portal/PublicWebSite/about/governance/committees/chemicalsafety/publications/WPCP\_012294</a>

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

### **Grading Policy**

monuted o evaluation of student pend	1000	TOTAL POINTS
instructor's evaluation of student perfo	rmance** 50	points
final exam	150	points
midterm exam	100	points
lab reports (including pre- and post-lal	o questions)* 550	points
lab notebook	150	points

<sup>\*</sup>Your lowest lab report grade of the semester will be dropped. Lab reports and pre-/post- lab questions must be submitted before the end of pre-lab lecture. Late reports will not be accepted without a university-approved excuse or prior approval from the instructor. (See the university policy on excused absences.)

**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 up the nearest whole percentage. The final grading scale may be adjusted in order to lower the threshold for a letter grade. If you believe there has been an error in the grading of your work, please consult Dr. McCunn.

<sup>\*\*</sup>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.

### **Attendance Policy**

Attendance is required to complete and receive credit for experiments. Students with excused absences will be allowed to make up missed labs. If you anticipate missing a lab, notify the instructor as soon as possible. It may be possible to make up the lab in the same week by making prior arrangements with the appropriate instructor(s). If class is cancelled unexpectedly, scheduled assignments will be due and scheduled tests will be given during the next class meeting.

#### 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 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 up to the ankles. If your attire is unsafe, points will be deducted from your grade and you must change before entering the lab. Any reckless disregard for safety (horseplay, not wearing 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 pre-lab 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 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, parts I & II	Lab check-in & Density of Water	
9/3	1 (if needed), 2	Density of Solutions / Separating Mixture	
		Components	
9/10	Class cancelled		
9/17	3	Determination of the Percent Oxygen in Air	
9/24	4	Reactions	
10/1	5	Determination of Avogadro's Number	
10/8	6	Heat of Reaction and Heat of Solution	
10/15	7 / Midterm Exam	Synthesis of an Alum	
10/22	8	Determination of an Empirical Formula	
10/29	9	Titration of Vinegar	
11/1	last day to withdraw from full-semester courses		
11/5	10	Combustion – Synthesis and Reactions of Oxygen	
11/12	11	Molecular Architecture	
11/19	12	Energy of a Peanut: Calorimetry	
11/26	no class, Fall Break		
12/3	lab check-out / Final Exam		