

## CHM218: Principles of Chemistry Lab II

Fall 2014

**Instructor:** Dr. Derrick Kolling  
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**Office Hours:** Office hours are Monday and Tuesday from 12 P.M. to 2 P.M. If you cannot attend the scheduled times, email me to set up an appointment. Expect to wait at least 24 hours before responses to emails.

**Description of Course:** A laboratory course that demonstrates the application of concepts introduced in Chemistry 212. Corequisite or prerequisite: CHM 212.

**Required Materials:** CHM 218 lab manual, BOOKBOUND lab notebook, goggles, non-programmable calculator (no graphing calculators or cell phones), ink pen, COMBINATION lock, paper towels

### Student Learning Outcomes

Student Learning Outcomes	In Practice	Assessment
Student will learn and follow safety rules in the lab.	-safety training at MUOnline -reading lab manual	-online safety course -midterm and final exams
Students will learn to properly use and care for lab equipment.	-reading lab manual -prelab lecture -lab experiments	-lab reports -online quizzes
Students will learn how to record and communicate procedures and findings.	-reading lab manual -prelab lecture -lab experiments	-lab notebooks -lab reports
Students will apply concepts introduced in CHM212.	-quizzes -homework	-pre- and post-lab questions -midterm and final exams

**Course Requirements and Grading:** Students should prepare for each class by reading the material that is to be covered, completing the pre-lab questions, and taking the online quiz. Grades will be determined by:

Online quizzes*	50	points
Lab notebook (and attendance)	100	points
Lab reports (including pre- and post-lab questions)%	550	points
Midterm	150	points
Final exam	150	points
	1000	TOTAL POINTS

\*Quizzes must be completed the night before class.

%The lowest lab report grade of the semester will be dropped.

**Grading Scale:**

900-1000 points	A
800-899 points	B
700-799 points	C
600-699 points	D
0-599 points	F

**Laboratory Schedule:**

<u>Date</u>	<u>Exp. No.</u>	<u>Experiment</u>	<u>Lab report/questions due</u>
8/28	1	Check-in and Introduction to Graphing	9/4
9/4	3	Synthesis and Characterization of a Triboluminescent Cmpd.	9/12
9/11	4	Protein Extrac. & Folding: Investigating Intermolecular Forces	9/18
9/18	5	Kinetics of Decomposition of Hydrogen Peroxide	9/25
9/25	6	Studying LeChâtelier's Principle	10/2
10/2	7	Quantitative Analysis: How Accurate Can a Titration Get?	10/9
10/9	12	Gibbs Free Energy: Solubility and Spontaneity	10/16
10/16		<b>Midterm</b>	
10/23	10	pH Dependence of Drug Absorption	10/30
10/30	11	Qualitative Analysis: What Metal Ions Are in This Solution?	11/6
11/6	13	Isolation of Copper Metal from Malachite Beads	11/13
11/13	2	Beer's Law: Determining Mass % of Acetylsalicylic Acid in Aspirin	11/20
11/20	14	Synthesis of a Coordination Compound	12/4
11/27		No Class, Fall Break	
12/4	Lab Check-out	<b>Final Exam</b>	

**Attendance Policy:** Attendance is mandatory for the labs and exams. Make-up exams and/or labs will be granted only in cases that are recognized by the University through an excused absence; the policy on excused absences can be found on pp. 123-125 of the 2009-2010 undergraduate catalog: [http://www.marshall.edu/catalog/undergraduate/ug\\_08-09\\_published.pdf](http://www.marshall.edu/catalog/undergraduate/ug_08-09_published.pdf).

**Safety Policy:** The safety rules for the labs can be found in p. viii of your CHM 218 lab manual. Closed-toe shoes and pants are required for participation in the laboratory. No midriff-baring tops are allowed. The instructor will send home students who have not dressed appropriately for lab. All injuries, no matter how trivial, must be reported to the instructor immediately.

**Policy for Students with Disabilities:** Marshall University is committed to equal opportunity in education for all students, including those with physical, learning, and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disabled Student Services (DSS) in Prichard Hall 117, phone (304) 696-2271 to provide documentation of their disability. Following this, the DSS Coordinator will send a letter to each of the student's instructors outlining the academic accommodation he/she will need to ensure equality in classroom experiences, outside assignment, testing and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, please visit <http://www.marshall.edu/disabled> or contact Disabled Student Services Office at Prichard Hall 11, phone (304) 696-2271.

**Affirmative Action Policy:** This course will follow Marshall University's policy on Affirmative Action, which can be found on p. 63 of the 2010–2011 undergraduate catalog: [http://www.marshall.edu/catalog/undergraduate/ug\\_10-11\\_published.pdf](http://www.marshall.edu/catalog/undergraduate/ug_10-11_published.pdf). Specifically, all students will be afforded equal opportunity without regard to race, color, sex, religion, age, disability, national origin, or sexual orientation..

**Conduct in Class:** Students are expected to respect all other students without regard to race, color, sex, religion, age, disability, national origin, or sexual orientation; prejudice will not be tolerated and may result in dismissal from the course. Cell phone, laptop, and MP3 player usage is discouraged during class. Students must maintain a clean work space and observe safety rules. The professor reserves the right to deduct points from students' grades for poor conduct.

**Academic Dishonesty:** Academic dishonesty will not be tolerated. Students who need a refresher on Marshall University's academic dishonesty policy should refer to pp. 66–69 in the 2010–11 Undergraduate Catalog. The catalog can be found online: [http://www.marshall.edu/catalog/undergraduate/ug\\_10-11.pdf](http://www.marshall.edu/catalog/undergraduate/ug_10-11.pdf). Cell phone usage during exams will result in an automatic zero on the exam.