



Marshall University Syllabus
College of Science
Chemistry

Course

CHM 218, Principles of Chemistry Laboratory II, Sections 101 and 102

Course Description

A laboratory course that demonstrates the application of concepts introduced in CHM 212.

Credits

2.00 (undergraduate)

Corequisite

CHM 212

Term/Year

Fall 2022

Class Meeting Days/Times

M 2:00-4:50 PM

Location

Science Building, room 473 for prelab lecture and 474/476 for laboratory

Academic Calendar

For beginning, ending, and add/drop dates, see the [Marshall University Academic Calendar](https://www.marshall.edu/academic-calendar/) (URL: <https://www.marshall.edu/academic-calendar/>).

Instructor

Dr. Laura McCunn-Jordan

**Please call me Dr. McCunn*

Contact Information

- Office: S 466 Masks are required during in-person office visits.

- Office Hours: Held virtually in Microsoft Teams on Mondays 9:00-10:30 AM and 12:30-1:30 PM, Wednesdays 9:00-10:30 AM and 1:30-3:30 PM. Schedule at least 1 hour in advance via Microsoft Bookings: <https://outlook.office365.com/owa/calendar/DrMcCunnOfficeHours@livemars hall.onmicrosoft.com/bookings/>
If you can't meet during those times or if you need help on short notice, email or call the instructor to request an appointment.
- Office Phone: 304-696-2319
- Marshall Email: mccunn@marshall.edu

COVID-19 Related Information

Marshall's official COVID-19 protocols are online at <https://www.marshall.edu/coronavirus> (URL: <https://www.marshall.edu/coronavirus/>). Policies and protocols may change over time as we respond to changing conditions. The website will always contain the most recent information – check it frequently for the most current information.

Key policies and practices at the start of the Fall 2022 semester include the following:

- **Wear a mask inside university buildings, *when required*.** To see the campus current masking status, visit Marshall's COVID-19 Dashboard (www.marshall.edu/coronavirus). Masks are not required in personal residence hall rooms or workspaces.
- **Students will disinfect their personal workspaces and virtual learning hubs** with disinfectant wipes provided nearby.
- **All members of the Marshall University community are expected to observe all COVID-19 protocols at all times. Students who are unable to follow University requirements due to a disability** should seek reasonable accommodations from the Office of Disability Services (ODS; disabilityservices@marshall.edu) during the first week of class.

Required Texts and Materials

1. CHM 218 Lab Manual
2. Access to MU Online and a Marshall email account
3. Composition notebook with sewn binding (not spiral-bound) and blue/black ink pen
4. Indirectly vented chemical safety goggles
5. Closed-toe shoes that cover the feet in entirety and clothing that covers the entire torso, extending down past the knees.
6. Combination lock for lab drawer
7. Roll of paper towels for cleanup
8. Non-programmable calculator for exams (it must not have keys for the alphabet)
9. Access to ACS academic lab safety guide (online)

Course Student Learning Outcomes

The table below shows the following relationships: How each student learning outcome will be practiced and assessed in the course.

Course Student Learning Outcomes	How students will practice each outcome in this Course	How student achievement of each outcome will be assessed in this Course
Students will know and follow safety rules in the chemical laboratory.	-Lab Safety training in MU Online -reading laboratory manual -laboratory experiments	-online Lab Safety quiz -exams and quizzes -instructor's evaluation
Students will learn how to properly use and care for laboratory equipment	-reading laboratory manual -prelab presentations -laboratory exercises	-laboratory reports -instructor's evaluation
Students will learn how to record and communicate laboratory experiments and results	-reading laboratory manual -prelab presentations -laboratory exercises	-laboratory notebook -laboratory reports
Students will apply concepts introduced in chemistry lecture (CHM 212)	-reading laboratory manual -laboratory exercises -laboratory calculations	-pre- and post-lab questions -laboratory reports -exams and quizzes

Course Requirements/Due Dates (can be accessed/submitted at Blackboard)

Aug. 29 (before lab):	-Complete Lab Safety Training and score at least 80% on quiz at Blackboard
Each week before start of lab time:	-Submit report for the previous week's lab -Be prepared for prelab quiz.

Grading Policy

Lab notebook	125	points
Quizzes (given at start of lab each week)*	45	points
Lab reports*	550	points
Exam 1	125	points
Exam 2	125	points
Instructor's evaluation of student performance**	30	points
	1000	TOTAL POINTS

*Each student's lowest lab report grade and lowest quiz grade will be dropped.

** The instructor's evaluation of student performance will be based on preparation for lab, on-time arrival, 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 during office hours or via email.

Attendance/Participation Policy

There is limited time to complete each experiment, so tardiness cannot be accommodated. If a student does not arrive by the end of prelab lecture, he/she/they will not be allowed to complete the lab and will receive a grade of zero on that report.

Each student's lowest report grade and lowest quiz grade will be dropped from their overall grade. Because of this policy, students with unexcused absences will not be allowed to make up missed work. Late work will not be accepted without a university-approved excuse.

Students with excused absences should contact the instructor **as soon as possible** to make arrangements for an accommodation. Absences related to coronavirus will be treated as excused absences. A student's first excused absence may be made up by attending a makeup lab, scheduled immediately after Exam 2. If the makeup lab is not completed, a grade of zero will be given for the missed lab, which can be counted as the dropped lab report grade. For subsequent excused absences, the student must contact the instructor **as soon as possible** to arrange a makeup lab assignment.

The Department of Chemistry policy, stated in the university catalog, requires that students complete at least 75% of laboratories to receive credit for the course. A student who misses 4 or more in-person laboratories, excused or unexcused, will need to confer with the instructor and consider withdrawing from the course.

University Policies

By enrolling in this course, you agree to the University Policies. Please read the full text of each policy (listed below) by going to [MU Academic Affairs: University](#)

[Policies](https://www.marshall.edu/academic-affairs/policies/). (URL: <https://www.marshall.edu/academic-affairs/policies/>)

- Academic Dishonesty Policy
- Academic Dismissal Policy
- Academic Forgiveness Policy
- Academic Probation and Suspension Policy
- Affirmative Action Policy
- Dead Week Policy
- D/F Repeat Rule
- Excused Absence Policy for Undergraduates
- Inclement Weather Policy
- Sexual Harassment Policy
- Students with Disabilities (Policies and Procedures)
- University Computing Services Acceptable Use Policy

Course Schedule

Lab Date	Expt. #	Topic	Notes
Aug. 22	1	Introduction and Lab check-in (white drawers) Introduction to Graphing	Expt. 1 is take-home
Aug. 29	2, Parts I&II 3, Part II	Absorption Spectroscopy	
Sept. 5	-	Labor Day, no lab	
Sept. 12	4	Protein Extraction and Folding: Investigating Noncovalent Interactions	
Sept. 19	5	Kinetics of the Decomposition of H ₂ O ₂	
Sept. 26	6	Determination of Water Hardness	Exam 1 Lab notebooks due
Oct. 3	7	Studying Le Châtelier's Principle	
Oct. 10	8	Bonding and Acidity	
Oct. 17	9	Quantitative Analysis: How Accurate Can a Titration Get?	
Oct. 24	10	pH Dependence of Drug Absorption	
Oct. 31	11	Qualitative Analysis	
Nov. 7	12	Isolation of Copper Metal from Malachite Beads	
Nov. 14	13	Gibbs Free Energy: Solubility and Spontaneity	
Nov. 21		Thanksgiving Break	
Nov. 28	-	Lab Check-out Make-up Labs	Exam 2 Lab notebooks due