



CHEM 111L: Intro Chem Lab Experience

Location:	Evening
Address:	1001 Rogers Street Columbia, MO 65216
Section:	19FALL1/CHEM/111L/EVA
Semester Credit Hours:	2
Class Day(s) and Time(s):	Monday, Wednesday 7:45 PM - 10:25 PM from August 26, 2019 to October 19, 2019

 Syllabus Contents

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 Course Information

Catalog Description

An experimental introduction to the physical and chemical properties of matter to complement CHEM 109 and CHEM 110.

Prerequisite: CHEM 109 or CHEM 110 or concurrent enrollment. Additional lab fee applicable to main campus day offerings.

Additional Notes

No class will be held on Monday, September 2 due to the Labor Day holiday. A mandatory makeup class will be held on Friday, September 6 at the regular scheduled class meeting.

 Textbooks

As part of TruitionSM, students will receive their course materials automatically as described below.

-  Zumdahl/Zumdahl. (2018). *Lab Manual for Zumdahl's Chemistry* (10th). Cengage. *Physical Book*

Bookstore Information

Visit <https://www.ccis.edu/bookstore.aspx> for details.

eText Information

If a course uses an eText, (see textbook information above) the book will be available directly in Desire2Learn (D2L) seven days before the session begins, if registered for courses prior to that date. Upon first login to VitalSource, students should

use their CougarMail email address; alternate email addresses cannot be used. More information about how to use the VitalSource platform, including offline access to eTexts, can be found in D2L.

Physical Course Materials Information

Students enrolled in courses that require physical materials will receive these materials automatically at the shipping address on file with Columbia College. Delivery date of physical materials is dependent on registration date and shipping location. Please refer to confirmation emails sent from Columbia College for more details on shipping status.

Returns: Students who drop a class are responsible for returning any physical course materials that were shipped. To initiate a return, visit [Ingram Returns](#) to generate a pre-paid return label. Materials from dropped courses must be returned within 30-days of receipt. **Failure to return physical items from a dropped course will result in a charge to the student account for all unreturned items.**

Note: Students who opt-out of having their books provided as part of [TuitionSM](#) are responsible for purchasing their own course materials.

Technology Requirements

THIS IS A TECHNOLOGY-ENRICHED COURSE WHICH COMBINES IN-SEAT INSTRUCTION WITH ONLINE LEARNING.

Participation in this course will require the basic technology for all classes at Columbia College:

- A computer with reliable internet access
- A web browser
- Acrobat Reader
- Microsoft Office or another word processor such as Open Office

For more information, see [technical requirements](#).

Course Learning Outcomes

1. Demonstrate laboratory safety.
2. Use laboratory techniques to collect data to test hypotheses.
3. Use mathematical/graphical skills to analyze experimental data.
4. Communicate the purpose and results of laboratory experiments.
5. Perform basic quantitative techniques, including gravimetric and volumetric measurement.

Grading

Grading Scale		
Grade	Points	Percent
A	900 - 1000	90-100%
B	800 - 899	80-89%
C	700 - 799	70-79%
D	600 - 699	60-69%
F	0 - 599	0-59%

Grade Weights		
Assignment Category	Points	Percent
Data Analysis	455	46%
prelab exercises	390	39%
Final Exam	155	16%
Total	1000	100%

Schedule of Due Dates

Week 1		
Assignment	Points	Due
Syllabus, Safety, Laboratory Math	65	one week
Lab Orientation, Basic Lab Techniques	65	one week
Week 2		
Assignment	Points	Due
Building and Calibrating a Spectrometer	65	one week
Spectroscopy	65	one week
Week 3		
Assignment	Points	Due
Melting points and Empirical Formula of an Oxide	65	one week
Acids and Bases	65	one week
Week 4		
Assignment	Points	Due
Halogens and Halides	65	one week
Molecular Structure	65	one week
Week 5		
Assignment	Points	Due
Volumetric Analysis	65	one week
Antacid Analysis	65	one week
Week 6		
Assignment	Points	Due
Copper Reactions	65	one week
Calorimetry I	65	one week
Week 7		
Assignment	Points	Due
Calorimetry II	65	one week
Molar Mass Determination of a Volatile Liquid	--	one week
Week 8		
Assignment	Points	Due
Total Points: 1000		

Assignment Overview

Assignments

Labs: Laboratory experience is a key component of chemistry. To that end, your course grade is determined principally by your performance in lab. In addition to attending weekly labs, a pre-lab quiz will be due the day of the lab and a report will be due the following week. A tentative schedule of experiments has been included on the course calendar below. Note: only your 13 best labs scores will be included in the calculation of your grade. As such, no makeup labs will be given and only one lab period can be missed without harming your grade.

13 x 65 = 845 points

Examinations

Comprehensive Final Exam on meeting 16 155points

☰ Course Outline

Click on each week to view details about the activities scheduled for that week.

Week 1:

Syllabus, Safety, Laboratory Math

Safety Quiz and lab math work sheet due in one week

Lab Orientation, Basic Lab Techniques

Pre-Lab exercise due before lab and Data Analysis report due in one week.

Week 2:

Building and Calibrating a Spectrometer

Lab quiz due before lab and report due in one week.

Spectroscopy

Lab quiz due before lab and report due in one week.

Week 3:

Melting points and Empirical Formula of an Oxide

Lab quiz due before lab and report due in one week.

Acids and Bases

Lab quiz due before lab and report due in one week.

Week 4:

Halogens and Halides

Lab quiz due before lab and report due in one week.

Molecular Structure

Lab quiz due before lab and report due in one week.

Week 5:

Volumetric Analysis

Lab quiz due before lab and report due in one week.

Antacid Analysis

Lab quiz due before lab and report due in one week.

Week 6:

Copper Reactions

Lab quiz due before lab and report due in one week.

Calorimetry I

Lab quiz due before lab and report due in one week.

Week 7:

Calorimetry II

Lab quiz due before lab and report due in one week.

Molar Mass Determination of a Volatile Liquid

Lab quiz due before lab and report due in one week.

Note: only your 13 best labs scores will be included in the calculation of your grade. As such, no makeup labs will be given and only one lab period can be missed without harming your grade. $13 \times 65 = 845$ points

Week 8:

Review, Check out

Review all prelab exercises

Final Exam

+ Additional Resources

Online databases are available at library.ccis.edu. You may access them using your CougarTrack login and password when prompted.

Technical Support

If you have problems accessing the course or posting your assignments, contact your instructor, the Columbia College Technology Solutions Center, or the D2L Helpdesk for assistance. If you have technical problems with the VitalSource eText reader, please contact VitalSource. Contact information is also available within the online course environment.

- Columbia College Technology Solutions Center: CCHelpDesk@ccis.edu, 800-231-2391 ex. 4357
- D2L Helpdesk: helpdesk@d2l.com, 877-325-7778
- VitalSource: support@vitalsource.com, 1-855-200-4146

Online Tutoring

Smarthinking is a free online tutoring service available to all Columbia College students. Smarthinking provides real-time online tutoring and homework help for Math, English, and Writing. Smarthinking also provides access to live tutorials in writing and math, as well as a full range of study resources, including writing manuals, sample problems, and study skills manuals. You can access the service from wherever you have a connection to the Internet. I encourage you to take advantage of this free service provided by the college.

Access Smarthinking through CougarTrack at [Students -> Academics -> Resources](#).

! Columbia College Policies and Procedures

The policies set forth in the [Policy Library](#) are the current official versions of College policies and supersede and replace any other existing or conflicting policies covering the same subject matter. For more information on policies applicable to students, see [Student Policies](#). For more information on policies applicable to the entire Columbia College community, see [College-Wide Policies](#).

Students are expected to read and abide by the College policies. Policies of particular interest to students include, but not limited to the following:

- Graduate Grading Policy
- Undergraduate Grading Policy
- Registration Policy and Procedures
- Withdrawal Policy
- Alcohol and Other Drugs Policy
- Family Educational Rights and Privacy Act (FERPA)

Additional Policies:

Academic Integrity and Plagiarism

Academic integrity is a cumulative process that begins with the first college learning opportunity. Students are responsible for knowing and abiding by the [Academic Integrity Policy and Procedures](#) and may not use ignorance of either as an excuse for academic misconduct. Additionally, all required papers may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers may be included in the Turnitin.com reference database for the purpose of detecting plagiarism. This service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

Disability Resources

If you have a disability that requires an accommodation, please speak with the instructor and consult the [Student Accessibility Resources](#) office. Student Accessibility Resources staff will determine appropriate accommodations and will work with your instructor to make sure these are available to you. To find additional information, see our [ADA and Section 504 Policy for Students](#).

Notice of Non-Discrimination and Equal Opportunity:

The College has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of discrimination, harassment, or retaliation on the basis of protected status, can report their experiences to a College official. For more information, see our [Non-Discrimination and Equal Opportunity Policy and Complaint Resolution Procedure](#).

Title IX and Sexual Misconduct

The College is committed to addressing the issues of discrimination, harassment and sexual misconduct in the educational and workplace landscape and will continue to modify policies, procedures and prevention efforts as needed. For more information, see the College's [Title IX and Sexual Misconduct Policy](#).

Course Policies and Procedures:

Attendance Policy

Columbia College students are expected to attend all classes and laboratory periods for which they are enrolled.

For classes with an online component, attendance for a week includes submitting any assigned online activity. Assigned activities are scheduled prior to the course commencing. Assigned activity due dates are subject to change based on actual course progression and will be adjusted as necessary. Attendance for the week is based upon the date work is submitted. A class week is defined as the period of time between Monday and Sunday (except for week 8, when the work and the course will end at 11:59 PM Central Time on Saturday.) The course and system deadlines are based on the Central Time Zone.

Students are directly responsible to instructors for class attendance and work missed during an absence for any cause. If absences jeopardize progress in a course, the College reserves the right to drop or withdraw students from classes. For additional information, see the Administrative Withdrawal for Non-Attendance heading in the [Withdrawal Policy](#).

CougarMail

All students are provided a CougarMail account when they enroll in classes at Columbia College. You are responsible for monitoring email from that account for important messages from the College and from your instructor.

Students should use email for private messages to the instructor and other students. The class discussions are for public messages so the class members can each see what others have to say about any given topic and respond.

Late Assignment Policy

All classes rely on participation and a commitment to your instructor and your classmates to regularly engage in the reading, discussion and writing assignments. You must keep up with the schedule of reading and writing to successfully complete the class.

No late assignments will be accepted without the prior approval of the instructor.

Acceptance of a late assignment is at the discretion of the instructor.

Make-up examinations may be authorized for students who miss regularly-scheduled examinations due to circumstances beyond their control. Make-up examinations must be administered as soon as possible after the regularly scheduled examination period and must be administered in a controlled environment.

Student Conduct

All Columbia College students, whether enrolled in a land-based or online course, are responsible for behaving in a manner consistent with Columbia College's [Student Conduct Code](#) and [Acceptable Computing Use Policy](#). Students violating these policies or any other College policy will be referred to the office of Student Affairs and/or the office of Academic Affairs for possible disciplinary action. The Student Code of Conduct, the [Student Behavioral Misconduct Policy and Procedures](#), and the Acceptable Computing Use Policy can be found in the Policy Library at ccis.edu/policies. The adjunct faculty member maintains

the right to manage a positive learning environment all students must adhere to the conventions of online etiquette when enrolled in a course with an online component.