

CHEM-113L General Chemistry Laboratory
Dr. Kathy Davis, Dr. Terrie Salupo, and Dr. Jeff Osborne

COURSE WEBSITE

All lab-related material can be found on the Canvas page for the course. You must print all lab material before coming to class.

OFFICE HOURS AND CONTACT INFORMATION

Our office hours are posted outside of our office doors; you can also make individual appointments. You can contact your professor directly at:

Dr. Kathy Davis: Office phone 982-5575, email (klDavis@manchester.edu); office SciC 311

Dr. Terrie Salupo: Office phone 982-5318, email (tsalupo@manchester.edu); office SciC 314

Dr. Jeff Osborne: Office phone 982-5075, email (jposborne@manchester.edu); office SciC 313

We will try to respond to your questions or course-related problems within 24 hours, either by email or by addressing them in class.

COURSE OBJECTIVES

To become familiar with common laboratory techniques, which emphasize the empirical nature of chemistry, and also to cultivate abilities in observation, analysis, critical thinking and communication.

COURSE CONTENT

This course is a companion to *CHEM 113—General Chemistry II*. There will be eight laboratory experiments and two lab skills tests. Reports are required for each experiment. In addition, there will be pre-lab assignments and quizzes for each experiment.

REQUIRED MATERIALS

Safety goggles, lab notebook with duplicate pages, permanent ink pen, scientific calculator

SAFETY POLICY

Safety procedures must be followed at all times. In particular, do not remove lab equipment or chemicals from the lab. Failure to follow these safety instructions can result in failure of the course.

ATTENDANCE POLICY

Attendance is required at *all* sessions. If you have an excused absence, please contact your lab instructor as soon as you become aware that attending your regularly scheduled lab is not possible. Making up an experiment is very difficult, and if an absence is necessary, then the best solution is to request permission to attend another section of the laboratory in the same week. Absence due to illness requires confirmation from the campus nurse or another medical professional. **Oversleeping is clearly not considered an excused absence.**

PORTFOLIO

If you plan to be a chemistry or education major, you will need to assemble a portfolio of your work in your senior year that covers all four years of material. You should save all of your work for this course, so that you will have your choice of samples when you prepare this document.

ACADEMIC DISHONESTY

Plagiarism in written assignments of any type is not allowed. A quick description of plagiarism is that proper credit is not given to someone else who originated the thought, words, or conclusions you are writing about. If

you discuss information that is not common knowledge and was obtained from a source other than your notebook, make a reference list at the end of your report.

The work you turn in must be your own. You may discuss the lab with others as you write; however, complete your report sheets independently. Do not, under any circumstances, share notebook pages or report sheets with another student, or ask another student to share these things with you. Again, you may discuss your thought process, data analysis, calculations, etc. with other students, but sharing notebooks, papers, and files is prohibited. Copying and pasting items is also prohibited, of course.

We will use this rule of thumb to judge plagiarism: if six or more words in a row in your document are exactly the same as another source (student, internet, book, etc.), you must put “quotation marks” around the words and cite your reference. Otherwise, the document will be judged to contain plagiarism. The “Plagiarism and Academic Dishonesty” section in the college catalog provides more information.

CALENDAR

Week 1 – 31 Jan - 1 Feb. NO LAB	Week 2 – 6-8 Feb. Introduction, Data Analysis, Check-in	Week 3 – 13-15 Feb. Calorimetry (short report)
Week 4 – 20-22 Feb. Rates of Reaction (long/oral report)	Week 5 – 27 Feb – 1 Mar. Oxidation of a Dye (long/oral report)	Week 6 – 6-8 March LeChatelier’s Principle (worksheet)
Week 7 – 13-15 March Skills Test 1 Oral Lab Reports	Week 8 – 20-22 March NO LAB – Spring Break	Week 9 – 27-29 March Vitamin C (short report)
Week 10 – 3-5 April K _a of a Weak Acid (short report)	Week 11 – 10-12 April Buffers (long/oral report)	Week 12 – 17-19 April K _{sp} (long/oral report)
Week 13 – 24-26 April Redox Titration (long/oral report)	Week 14 – 1-3 May Skills test practice Oral lab reports	Week 15 – 8-10 May Skills Test #2 and Checkout

GRADING

Grades will be based on results, not effort, following a straight scale of the percentage of total points. Note that this total is tentative; additional assignments may be given.

Prelab Worksheets	9	@ 4 pts	36 pts
LeChatelier Worksheet	1	@ 15 pts	15 pts
Long Lab Reports/Oral Reports	5	@ 30 pts	150 pts
Short Lab Reports	3	@ 20 pts	60 pts
Lab Quizzes	9	@ 4 pts	36 pts
<u>Lab Skills Tests</u>	2	@ 30 pts	60 pts
Total			357 pts

SPECIFIC INSTRUCTIONS FOR LAB ASSIGNMENTS

Pre-Lab Worksheets. Pre-lab worksheets cover the week's upcoming experiment and are distributed on Canvas with the lab handout. Pre-lab worksheets are due *at the beginning of class* and will not be accepted after the pre-lab lecture begins.

Lab Quizzes. At the beginning of each pre-lab lecture, you will take a short quiz on the experiment for the day. Quizzes will assess your comprehension of the procedure and handling of chemicals. If you arrive late to the pre-lab lecture, you will not be permitted to take the quiz.

Lab Notebooks. During the laboratory session, all writing will be done in your lab notebook. Do not use any other paper for notes during the lab, and write neatly in pen. At the end of each period, show your lab pages to your instructor or lab assistant for their approval and initials, and turn in the carbon copy pages.

Short Lab Reports. Some experiments require a short write-up. More information will be provided with those labs. You must write your report alone, even if lab work has been done in pairs or groups. Again, *although you may discuss the lab experiment with others, you must write your report sheet independently.*

Formal (Long) Lab Report. Some experiments require a more in-depth, longer write-up. More information will be provided with those labs. You must write your report alone, even if lab work has been done in pairs or groups. Again, *although you may discuss the lab experiment with others, you must write your lab report independently.*

Oral Lab Reports. One of your formal lab reports will be in the form of an Oral Lab Report. Your instructor will inform you which experiment you will be presenting and when. See the "Oral Lab Report Guide" on Canvas for more information on how to prepare for your oral report.

Lab Skills Tests. Two skills tests will be administered during the semester: one in Week 7, and the other in Week 15. Topics will be drawn from previous lab experiments as follows:

- Skills Test 1 – calorimetry measurements and calculations, calculations from rate law data
- Skills Test 2 – performing accurate and precise titrations, performing accurate titration calculations, using a pH meter

Diversity: Disrespect of other students, in the form of verbal or written threats, attacks, or insults on the basis of gender, race, physical disability, physical stature, culture, socio-economic class, creed, sexual preference, mental disability or any form of social group membership will not be tolerated.

Student disability and reasonable accommodation statement

Manchester University, in compliance with federal guidelines, is committed to assuring students with disabilities equal access to programs and activities however, it is the student's responsibility to self-disclose the disability. Students who feel they may need an accommodation based on the impact of a disability should contact Mia Miller, the Disability Support Coordinator, to establish eligibility and to coordinate reasonable accommodations. Students whose accommodation requests are approved will be provided with confidential letters to deliver to their professors. Each letter verifies the disability and documents the need for auxiliary aids and services and/or academic adjustments/accommodations. Students are encouraged to meet with each professor early in the semester to discuss academic implications as they relate to each specific course and to request appropriate accommodation. The Disability Support Services office is in the Success Center (second floor of the Jo Young Switzer Center) and can be reached by phone at 260-982-5888 or 260-982-5499 to schedule an appointment.

Medical emergency evacuation schedule

Students should speak to the instructor immediately if (1) they may require medical attention during class, or (2) they have a disability, chronic condition, or a temporary injury that may limit or affect their ability to evacuate the classroom/building in an emergency. The student and the instructor should discuss the student's specific needs and the types of precautions that should be made in advance of such an event. In the event of a fire or other situation requiring emergency evacuation, students with ambulatory disabilities are to go with or without assistance to the nearest stairwell area. Faculty and staff will assist with evacuation management efforts until such time as the Campus Safety and/or Police and Fire Departments arrive on the scene to assist in student evacuation from the building. Elevators are not to be used for evacuation by any persons.

Students who need special arrangements in the event of an evacuation should also register with Mia Miller in the Success Center as early as possible in the semester to help facilitate the provision of needed emergency assistance.

Title IX reporting requirements

Manchester University is committed to fostering a safe community where the infinite worth of all individuals is respected. Title IX and institutional policy prohibit discrimination on the basis of sex and gender identity.

Consequently, sexual misconduct—including harassment, domestic and dating violence, sexual assault, and stalking—is also prohibited at Manchester. Faculty, staff and administrators encourage anyone experiencing sexual misconduct, dating/domestic violence, or stalking to talk to someone about what happened, so they can get the support they need and Manchester University can respond appropriately.

If you wish to speak confidentially with a Manchester employee/on-campus representative about an incident of sexual misconduct, please contact:

MU Counseling Services (260-982-5306)

MU Health Services (260-982-5306)

MU Campus Pastor (260-982-5243)

North Manchester Campus Victim Advocate (260-563-4407)

Off-campus resources include the following:

Hands of Hope (Service to North Manchester Campus-24/7 Hotline 260-563-4407)

Fort Wayne Sexual Violence Treatment Center (Service to both Fort Wayne & North Manchester Campuses-24/7 Hotline 260-423-2222)

YWCA of Northeast Indiana (Domestic Violence & Sexual Violence: 260-447-7233)

If you wish to file a report of sexual misconduct, please contact:

Dean of Student Experience/Title IX Coordinator Allen Michaelson at 260-982-5052 or/and Manchester University Campus Safety (260-982-5999)

If you have questions about institutional policies and procedures regarding sexual misconduct, please contact the Title IX Coordinator. If you would like to make a police report contact the North Manchester Police Department (260-983-8555) or Fort Wayne Police Department (260-472-1222).

You can learn more about Title IX and survivor support at the following websites:

<https://www.manchester.edu/about-manchester/university-priorities/title-ix> &

<https://www.manchester.edu/student-life/care-initiative/care-intitiative-home>.

Manchester University strives to uphold privacy and confidentiality as much as possible and only shares information received with those who have a need to know in order to respond. Individuals who desire anonymity in discussing and seeking assistance about sexual misconduct should contact and/or be referred to a confidential employee.

Starfish: Student Success and Intervention Coordination System

This course participates in Starfish Early Alert, which is designed to support students' academic success, persistence and graduation. When a concern arises that the Instructor believes may impede or disrupt a student's academic success, the instructor will raise an alert flag that notifies the student about the concern and/or refer the student to key individuals within the student's success network. If a student receives an email notification of an early alert, it is that student's responsibility to contact the instructor as soon as possible to discuss the issue. The purpose of the contact should be to determine the severity of the issue and develop an action plan to be successful in the course. The Starfish program is coordinated through the Success Center. For more information or questions contact Starfish Support at starfishsupport@manchester.edu or the Success Center directly by phone at 260-982-5888.

Issues not addressed here or in other official course documents will be resolved at the discretion of the course coordinator.