

SYLLABUS

Dr. Jeff Osborne

COURSE WEBSITE

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

OFFICE HOURS AND CONTACT INFORMATION

My office hours are posted outside of my office door; you can also make individual appointments. You can contact me directly at:

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

I 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 to cultivate abilities in observation, analysis, critical thinking and communication.

COURSE CONTENT

This course is a companion to CHEM-111 (General Chemistry I). 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

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 and papers is prohibited.

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 university catalog provides more information.

For a more detailed description, read the document *Academic Dishonesty and Grievance Policy* found in the CANVAS site for this course or in the University’s online catalog.

CALENDAR

Week 1 – 31 Jan – 2 Feb NO LAB	Week 2 – 6-8 Feb. Introduction, Lab Safety, Check-in, and Math Review/MS Excel	Week 3 – 13-15 Feb. KHCO ₃ Decomposition Stoichiometry (short report)
Week 4 – 20-22 Feb. Method of Continuous Variation (long report)	Week 5 – 27 Feb-1 Mar. Writing Workshop and Proper Citation Methods	Week 6 – 6-8 Mar. Photochemistry (short report)
Week 7 – 13-15 Mar. Skills Test #1	Week 8 – 20-22 Mar. NO LAB – Spring Break	Week 9 – 27-29 Mar. Spectroscopy (long report)
Week 10 – 3 - 5 Apr. Copper Spectroscopy (short report)	Week 10 – 12 Apr. Spectroscopic Determination of Aspirin (long report)	Week 12 – 17-19 Apr. Gas Collection (worksheet)
Week 13 – 24-26 Apr. Diffusion (short report)	Week 14 – 1-3 May. Skills Test Practice	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.

Math Review/Excel activity	1	@ 15 pts	15 pts
Prelab Worksheets	8	@ 4 pts	32 pts
Short Lab Reports	4	@ 25 pts	100 pts
Long Lab Reports	3	@ 30 pts	90 pts
Lab Quizzes	8	@ 4 pts	32 pts
Gas Collection Worksheet	1	@ 15 pts	15 pts
<u>Lab Skills Tests</u>	2	@ 30 pts	60 pts
Total			344 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. At the end of each period, show your lab pages to your instructor or lab assistant for their approval, 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 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.*

Gas Collection Worksheet. In lieu of a short or long report, you will complete an activity sheet on this lab.

Lab Skills Test. At two points in the semester, lab skills tests will be administered. You will demonstrate your competence in performing various laboratory techniques, skills, and calculations covered over the course of the semester. Additional information about the lab skills test will be given closer to the designated dates.

Title IX Reporting Requirements. Manchester University is committed to fostering a safe community where the infinite worth of all individuals are 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 Machielson 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-initiative-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.

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 that are provided to students without disabilities.

Any student who feels she or he may need an accommodation based on the impact of a disability should contact Audrey Hampshire, the Director of Academic Support and Disability Services, to establish eligibility and to coordinate reasonable accommodations. It is the student's responsibility to self-disclose the disability. Students whose accommodation requests are approved will be provided with confidential letters to deliver to their professors which verify the nature of the student's disability and document 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 the academic implications of the disability as they relate to the specific course and to request appropriate accommodations. The Disability Support Services Office is located in the Success Center (second floor of the Switzer Center). Students may call (260) 982-5036 or (260) 982-5888 to schedule an appointment.

Medical Emergency/Evacuation Assistance Statement: 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 Audrey Hampshire as early as possible in the semester to help facilitate the provision of needed emergency assistance.

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.