

SYLLABUS**CHEM-111L General Chemistry Laboratory**

Dr. Mark Bryant, Dr. Kathy Davis, Dr. Jeff Osborne, and Dr. Terrie Salupo-Bryant

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. Mark Bryant: Office phone 982-5320, home phone 982-6336, email (mabryant@manchester.edu); office SciC 315

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

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

Dr. Terrie Salupo-Bryant: Office phone 982-5318, home phone 982-6336, email (tsalupo-bryant@manchester.edu); office SciC 314

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-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 college catalog provides more information.

CALENDAR

Week 1 – 31 Aug. – 2 Sept. NO LAB	Week 2 – 6-8 Sept. Introduction, Lab Safety, Check-in, and Math Review/MS Excel	Week 3 – 13-15 Sept. KHCO ₃ Decomposition Stoichiometry (short report)
Week 4 – 20-22 Sept. Method of Continuous Variation (long report)	Week 5 – 27-29 Sept. Writing Workshop and Proper Citation Methods	Week 6 – 4-6 Oct. Photochemistry (short report)
Week 7 – 11-13 Oct. Skills Test #1	Week 8 – 18-20 Oct. NO LAB – Fall Break (possible makeup week)	Week 9 – 25-27 Oct. Spectroscopy (long report)
Week 10 – 1-3 Nov. Copper Spectroscopy (short report)	Week 11 – 8-10 Nov. Spectrophotometric Determination of Aspirin (long report)	Week 12 – 15-17 Nov. Gas Collection (worksheet)
Week 13 – 22-24 Nov. NO LAB – Thanksgiving (makeups on 22 Nov.)	Week 14 – 29 Nov. – 1 Dec. Diffusion (short report)	Week 15 – 6-8 Dec. Skills Test #2

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	@ 20 pts	80 pts
Long Lab Reports	3	@ 30 pts	90 pts
Lab Quizzes	8	@ 4 pts	32 pts
Gas Collection Worksheet	1	@ 15 pts	15 pts
Lab Skills Tests	2	@ 30 pts	60 pts
Total			324 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: While students should feel comfortable approaching the professor with issues they may be struggling with or concerns they may be having, they should be aware that faculty members have some reporting requirements that are part of their job duties at Manchester University.

For example, if a student informs a faculty member of an issue of sexual harassment, sexual assault, or discrimination, the faculty member will keep the information as private as possible, but the faculty member is required to bring it to the attention of the institution's Title IX Coordinator (ext. 5052 or ajmachielson@manchester.edu) or the Human Resources office (ext. 5038). Additionally, students can report incidents or complaints to Campus Safety (ext. 5999 or in Fort Wayne: 260-266-1800). Students can also obtain support from the University Counseling Services (ext. 5306).

Finally, students should know that if, for some reason, the interaction between a student and faculty member involves a disruptive behavior or potential violation of policy, the faculty member will inform the appropriate Student Experience staff, even when the student and faculty member may have reached an informal resolution to the incident. The purpose of this is to keep University leaders apprised of any behaviors and what was done to resolve them.

Campus resources**Health services****260-982-5306**<http://www.manchester.edu/OSD/Health/Index.htm>**Counseling center****260-982-5306**<http://www.manchester.edu/OSD/Counseling/Index.htm>**Safety****NM: 260-982-5999; FW: 260-266-1800**<http://www.manchester.edu/OSD/Security/index.shtml>**Disability Services:**

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 s/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 his or her 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 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 the academic implications of the disability as they relate to the specific course and to request appropriate accommodation. The Disability Support Services office is located in the Success Center (second floor of the JYS Center). Telephone (260) 982.5036 or (260) 982.5888 to schedule an appointment.

Medical Emergency/Evacuation Assistance Statement: Please speak to your instructor immediately if (1) you may require medical attention during class, or (2) you have a disability, chronic condition, or a temporary injury that may limit or affect your ability to evacuate the classroom/building in an emergency. You and your instructor should discuss your specific needs and the type 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.

Academic Dishonesty and Grievance Policy: Membership in the Manchester University community requires a devotion to the highest principles of academic and personal integrity, a commitment to maintain honor, and a continuous regard for the rights of others. There can be no rights without individual responsibility.

Manchester University faculty are committed to teaching and learning as a career and a profession. Each instructor is presumed to develop and use methods and techniques which enhance learning and which best fit his or her personality and subject matter area. At the same time, the instructor is expected to abide by the general principles of responsible teaching which are commonly accepted by the academic profession. These principles suggest that faculty keep complete records of student performance and that they develop and apply express, uniform criteria for evaluating student performance.

Students are free to take reasoned exception to the data or views offered in any course of study. While they may reserve judgment about matters of opinion, they are responsible for learning the content of any course in which they are enrolled. At the same time, students are expected to abide by the general principles of academic honesty which are commonly accepted in educational settings.

When a student chooses not to follow the general principles of academic honesty, the following policies and procedures will apply.

Academic Dishonesty Policy: The Academic Dishonesty Policy applies in cases of plagiarism or cheating as defined below.

Plagiarism: Plagiarism is the presentation of information (either written or oral) as one's own when some or all of the information was derived from some other source. Specific types of plagiarism encountered in written and oral assignments include the following:

Sources have been properly identified, but excerpts have been quoted without proper use of quotation marks; or the material has been slightly modified or rephrased rather than restated in the student's own words.

- Key ideas or items of information derived from specific sources that present material that is not common knowledge have been presented without proper identification of the source or sources.
- Unidentified excerpts from other sources have been woven into the student's own presentation.
- A paper or speech may be a mosaic of excerpts from several sources and presented as the student's own.
- An entire paper or speech has been obtained from some other source and presented as the student's own.
- Texts in another language are translated into English and presented as the student's own.

Cheating: Cheating consists of any unpermitted use of notes, texts or other sources so as to give an unfair advantage to a student in completing a class assignment or an examination. Intentionally aiding another student engaged in academic dishonesty is also considered cheating. Submission of the same work (essay, speech, art piece, etc.) to fulfill assignments in separate classes requires the permission of both instructors (if both courses are being taken in the same semester), or the permission of the second instructor (if they are taken during different semesters).

Academic Dishonesty Procedures:

1. In a case of academic dishonesty, the instructor shall send a letter documenting the deception to the student (via e-mail and hard copy to student mailbox or home address), with copies emailed to the associate dean for academic resources, the dean for student experience, and the student's academic advisor. The instructor shall complete an Academic Dishonesty Tracking form and submit documentation of the academic dishonesty to the Office of Academic Resources.
2. In cases of a first offense, the associate dean will send a letter outlining the seriousness of academic dishonesty and the consequences of a second offense to first offenders not going through the AIP (Academic Integrity Panel) process.
3. A formal appeal of the professor-imposed sanction may be submitted to the Vice President for Academic Resources within a week of the date of the letter from the associate dean for academic resources documenting the dishonesty.
4. An AIP will be convened by the associate dean for academic resources for all second offenses, and for any first offenses if requested by the instructor. The AIP will consist of the associate dean for academic resources, two faculty selected from six members appointed by FEC (Faculty Executive Committee), and two students selected from a pool of eligible students appointed by the Office of Academic Resources. The composition of each AIP will be determined based on scheduling availability and avoidance of conflict of interest. The associate dean for academic resources will vote only in cases of a tie. The associate dean for academic resources will schedule a hearing with the student and the AIP upon receipt of the tracking form. A registration "hold" will be placed in effect until the hearing has occurred.
5. Following the hearing the associate dean for academic resources will inform the student and the instructor who filed the report of dishonesty of the AIP's decision in writing. The associate dean will inform the registrar of any action which affects enrollment (e.g., suspension or expulsion).

Penalties:

1. The instructor has the sole discretion to impose specific grade sanctions such as failure of the assignment or failure of the course for any incident of academic dishonesty. When a failing grade for the course is imposed, the student will not be allowed to withdraw from the course with a grade of W.
2. For a first referred offense, the AIP has the discretion to impose disciplinary sanctions such as a letter of apology, monetary fine or community service requirement in addition to any grade sanction imposed by the instructor.
3. For a second or subsequent offense, an AIP hearing will occur, whereby additional sanctions up to and including suspension or expulsion from the University could be applied.

Due Process:

Students shall have a right to due process. This shall include the right:

1. To be informed of the nature of the violation
2. To a fair hearing of the evidence leading to a decision in the case
3. To be accompanied to any hearing by a faculty or administrative staff member from the University campus community.
4. To request an appeal based only on due process or new, exculpatory evidence

Appeal: An appeal for an academic dishonesty decision may be made ONLY with the vice president for academic resources (VPAR) and ONLY on the basis of due process violations or the discovery of new, exculpatory evidence. The VPAR's decision is final and no further appeal procedure shall exist in the University. A request for appeal must be made with the VPAR within five days of receipt of the AIP's decision.

Academic Grievance Policy: The Academic Grievance Policy pertains only to cases in which a student believes the final course grade has been assigned in a capricious or unfair manner. Grievances unrelated to academic performance may be brought directly to the Office of Academic Resources.

Academic Grievance Procedures

1. The student and the instructor should discuss the student's grievance and make every effort to reach a satisfactory solution. A mutually agreed upon third party may be invited to observe the meeting.
2. If an agreement cannot be reached, the student will bring the issue to the department chair of the involved instructor. Final course grade grievance must be brought before the department chair no later than March 1 for fall semester and January session grades, and October 1 for spring semester and summer session grades.
 - a. The chair will request a detailed written summary from each party.
 - b. The chair will inform the vice president for academic resources of the grievance.
 - c. The chair will meet with both parties together, listen to their concerns and attempt to resolve the grievance.
 - d. If an agreement is reached, the chair will inform the vice president for academic resources of the result in writing. The written summaries will be forwarded to the Office of Academic Resources (see a. above).

Exception: If the involved instructor is the department chair, the chair will request that the vice president for academic resources appoint another full-time faculty member from that department to hear the concerns and attempt to resolve the grievance.

3. If an agreement cannot be reached through the department chair, the student may initiate the formal grievance procedure.
 - a. The student will obtain an Academic Grievance form from the Office of Academic Resources.
 - b. The completed form will be forwarded by the student to the Office of Academic Resources.
 - c. The Academic Standards Committee (or its designated representative) will review the grievance only if procedures 1 & 2 have been completed. The written summaries initially provided to the department chair can be used by the Academic Standards Committee and/or the committee may wish to interview both parties individually.
 - d. The Academic Standards Committee will render a final decision.

Exception: If the involved instructor is a member of the Academic Standards Committee, the vice president for academic resources will appoint a full-time faculty member from the same college to replace the involved instructor while the grievance is being reviewed, discussed, and a decision is being made. If the involved instructor is the academic dean, the chair of the Academic Standards Committee will request that the vice president for academic resources appoint a full-time faculty member to replace the academic dean while the grievance is being reviewed, discussed, and a decision is being made.