

Mayville State University
Organic Chemistry Laboratory

CHEM 341L

Fall 2018

Instructor: Miess

Meeting Time: T 12:00 – 1:50

Office: Classroom Building 108C

Credits: 1 S. H.

Office Hours: M 10, T 9, F 2

Office Phone: 34885

e-mail: robert.miess@mayvillestate.edu

Mode: On-Campus, face-to-face

Learning Management System: This course will use Blackboard.

Course Description:

"One must learn by doing the thing; for though you think you know it, you have no certainty until you try."

Sophocles

The CHEM 341/342L laboratory course sequence is intended to introduce or expand upon ideas and concepts relevant to the corresponding "lecture" class.

Good laboratory experiences can make a significant contribution to your professional work and expand the meaning and enjoyment of your life. Many of these experiences are particular to this course; they may not be confronted anywhere else in your college career.

Purpose:

The purpose of this lab course is to provide an opportunity for the student to apply the theoretical knowledge presented in lecture and get practical experience working in a laboratory setting.

Objectives:

In this laboratory class you will:

1. Apply theoretical ideas to practical situations - a critical aspect of most careers.
2. Gain skill in performing certain operations, often detailed and complex, to a successful conclusion, and thereby develop confidence in your own abilities and the reliability of scientific experimentation.
3. Learn to make sound conclusions based on your own observations of experimental data.
4. Arrive at a decision as a member of a cooperative group.

Assessment:

The Chemistry Program adopted the following student learning outcomes in Fall 2010. Student learning outcomes are statements of what students should think, know, feel or do when they have completed a program. They are the basis for determining the extent to which program learning goals are being met. They are measurable or identifiable, action-oriented and realistic. The entire Academic Program Student

Learning Outcomes (SLO) document can be found in your Blackboard course shell. The document has an index so you can quickly find the degree you are pursuing.

- SLO #1:** Students will acquire a content knowledge base in the traditional chemistry core commensurate with career goals
- SLO #2:** Students will communicate scientific information both orally and in writing
- SLO #3:** Students will apply quantitative or qualitative theories of science to a broad variety of chemical problems (including experiential component)
- SLO #4:** Students will construct and critically analyze scientific arguments
- SLO #5:** Students will integrate technology into their work and their work products

Specific assessment activities have been identified for most required courses in a program. The results of these activities will be gathered and evaluated for use in improving the program.

There are no specific program SLO's related to this lab course at this time.

Course Improvements Based on Most Recent Assessment Findings

In CHEM 341L no high-stakes program activities have been identified at this time. As the current assessment cycle is concluding and a planning cycle is beginning, there are no ES SLO's scheduled to be addressed at this time either.

Requirements:

Text:

There is no required lab text/notebook for this course. Lab handouts will be posted on Blackboard. Reference materials are available in the lab.

Instructional Strategies:

Written communication

Active learning

Instructional technologies utilized in this course:

- **Blackboard** – MSU's learning management system and virtual class environment

Laboratory Safety:

Everyone enrolled in a laboratory course must be familiar with the safety guidelines.

Learning Experiences:

1. Come to class prepared. This preparation includes reading through the laboratory handout which outlines the experiment. You should be able to answer the pre-lab questions.

"In the field of observation, chance favors only the prepared mind."

Louis Pasteur

2. Participate in the laboratory experience. Collection of experimental data will always be part of the experience. You will record your observations in the data sheets. In some instances calculations will be required to fill in a data table, therefore it is recommended that you bring a calculator to lab.
3. Write a laboratory report for each experiment. One week following the collection of

the experimental data, a formal written report is due.

4. Attend all laboratory class periods. Only absences due to an University approved excuse will be approved. If you miss a period due to an excused absence you will be allowed to make up the work. It is your responsibility to make the arrangements. If you miss a period due to an unexcused absence you will not be allowed to make up the work. You will receive a "0" grade for the missed report.

Expectations/Protocols:

Laboratory reports for each experiment are required. Reports should include a table of reagents and products, the data collected during the experiment, a conclusion, and answers to any post-laboratory questions. Reports are due one week after the experimental data are collected. Calculations should include proper units. All answers must be labelled. Graphs should be labelled. Even if you do the experiment with a partner, you must turn in your own report. If you use information from a book or table, include the reference in an endnote to your report. (80% of grade)

At the end of the semester, a Final Exam will be given. The exam will consist of twenty multiple choice questions. These questions will be based upon the experiments you have performed during the semester. There will be at least one question from each experiment as well as calculation and procedural questions. (20% of grade)

Instructor/Student Communication:

- Students are accountable for all academic communications sent to their Mayville State University e-mail address.

I will normally respond to email communications within 24 hours.

Method of Evaluation/Grading:

Written feedback will be provided within two weeks of the submission deadline for the lab report. The course grade you earn will be based upon percentage of total points possible; 90 % + = A, 80 % + = B, etc.

A listing of important University policies related to courses and coursework, *Important Student Information*, is posted on the class Blackboard site.

- ✓ Academic Grievance Concerns and Instructor English Proficiency
- ✓ Starfish Student Success System

This class will participate in Starfish Early Alert and Connect, which promotes student success through coordination and communication among students, instructors, advisors, and campus support service departments. If I observe that you are experiencing difficulties in the course (attendance concerns, low test scores or participation, in danger of failing, etc.), I may send an email to your mayvillestate.edu email account through the Starfish system. My message will tell you about my concerns and the next steps to take to resolve the issue. Your advisor, the Director of Student Success, and/or I will work with you to create success strategies to address any difficulties you are having. In addition, if I observe that you are doing well in my course, you may also receive “kudos” from me acknowledging your efforts.

Starfish may involve taking advantage of various campus support services, such as academic tutoring or advising. If I recommend that you use campus support services, I, your advisor, or the Director of Student Success will redirect you to that support office so they will be better prepared to assist you. Starfish provides essential notices by email, so please check your mayvillestate.edu account frequently and respond quickly if you receive an email from Starfish.

Please see the Starfish webpage for additional details: <https://mayvillestate.edu/academics/starfish/>.

- ✓ Students with Disabilities
- ✓ Academic Honesty
- ✓ Emergency Notification
- ✓ Continuity of Academic Instruction for a Pandemic or Emergency
- ✓ Family Educational Rights and Privacy Act of 1974 (FERPA)
- ✓ Diversity Statement

The above schedule and procedures in this course are subject to change with prior notice given to students in the event of extenuating circumstances.