MAYVILLE STATE UNIVERSITY

CHEM 122 General Chemistry II Lab Online

Jeff Hovde

Fall 2020

Semester Hours: 1

Contact Info:

Office Ext.: 701-788-5291
Office: SB 144B
Email: jeffrey.hovde@mayvillestate.edu

Hours of availability: By appointment
Instruction Mode: Online asynchronous
Time Zone: Central Standard Time

Course Description: The CHEM 121/122-course sequence is intended to be an introduction to the basic concepts of chemistry. In CHEM 121 we will study the basic properties of atoms and how they bond together to form compounds and molecules. We will look at the characteristics of these compounds/molecules, name them, and predict bot products and quantities that come from chemical reactions.

Good thinking is practical. No matter what your circumstances or what your aims; you are better off if your thinking is sound. As a shopper, teacher, student, businessperson, citizen, friend, or parent good thinking pays off. Critical thinking is the art of ensuring that you use the best thinking of which you are capable given a set of circumstances. Critical thinking will be incorporated throughout the course – often implicitly. A critical thinker considers the elements of reasoning – purpose of the thinking, the question at issue *(the problem)*, information *(data, observations, and experiences)*, inferences *(conclusions, possible solutions)*, concepts *(theories, definitions, models)*, assumptions *(presuppositions)*, consequences, and points of view *(perspective, frame of reference)*. Critical thinking is often judged against universal standards – clarity *(state, elaborate, illustrate, exemplify)*, accuracy, precision, relevance, depth, and breadth.

Purpose of the Course

The purposes of General Chemistry I Lab include meeting the expectations of a MSU and North Dakota University System 'general education laboratory science' requirement and System 'common course', developing an understanding of basic inorganic chemistry principles, laying the foundation for future chemistry and science courses, developing a general appreciation of chemistry (and science) and its role in today's society, and putting into practice observational, theoretical, experimental, and mathematical skills in order to explain and confirm general chemistry concepts.

Course Objectives

The objectives for the course are:

1) Study and acquire basic knowledge of those aspects of chemistry that occur naturally in our universe and on our planet. Those aspects will include:
   a) Scientific Method
   b) Atom and molecules
   c) Bonding

d) Chemical Reactivity

2) Practice communication and recording skills

3) Ability to work independently

Program Student Learning Outcomes Addressed in This Course

The Academic Program Student Learning Outcomes document can be found in your course shell. It contains all learning outcomes pertaining to Essential Studies courses and all majors and minors. The document has an index, so you can quickly find the degree you are pursuing.

As part of Mayville State's effort to demonstrate continuous improvement in achieving student learning outcomes, this course:

☒ introduces SLO # 1 ☐ reinforces SLO # ☐ masters SLO # For Major / Minor: Chemistry	☒ introduces SLO #3 ☐ reinforces SLO # ☐ masters SLO # For Major / Minor: Chemistry	☐ introduces SLO # ☐ reinforces SLO # ☐ masters SLO # For Major / Minor:	☐ introduces SLO # ☐ reinforces SLO # ☐ masters SLO # For Major / Minor:

As part of Mayville State's effort to demonstrate continuous improvement in achieving Essential Studies Learning Outcomes, this course will assess

ELO # ☐1 ☐2 ☐3 ☐4

as part of the Essential Studies and Capstone Courses. As part of Mayville State University's Essential Studies curriculum, this course seeks to prepare students for twenty-first century challenges by gaining: 1) Knowledge of human cultures; 2) Intellectual and practical skills; 3) Personal and social responsibility; 4) Integrative and applied learning.

The assessment activity will involve essay questions.

Course Improvements Based on Most Recent Assessment Findings

This course will be assessed in the future (based on the 2019-2025 assessment curriculum map) and the findings will be reported in this syllabus.

Required/Recommended Materials

This course requires a lab kit purchased from the Mayville State University bookstore or Hands On Learning.

This is the Student Enrollment Link: https://myhol.holscience.com/enroll/dscf-kxbk-mhfb-dnrc

Learning Experiences

- Assignments will be given via the Detailed Schedule

Expectations/Protocols

There will be NO make-up labs given unless I have been contacted prior to the due date with a valid approved excuse. There are very few approved excuses so do not assume that your excuse is sufficient.

I do not accept any late work.

Do not email me to inform me of the grade you need for the course.

Email is the best way to contact me.

Instructor/Student Communication

- Students are accountable for all academic communications sent to their Mayville State University e-mail address.
- I will communicate through email and announcements in Blackboard.
- I will respond to all emails within 48 hours.

Method of Evaluation/Grading

- I will grade your work within 1 week.
- Assignments are not weighted.

Total Points: Labs 260 pts	90 - 100%	A
Introduction Forum 10pts	80 - 89.9%	B
	70 - 79.9%	C
	60 - 69.9%	D

Enrollment Verification

The U.S. Department of Education requires instructors of online courses to provide an activity which will validate student enrollment in this course. The only way to verify that a student has been in this course is if he or she takes an *action* in Blackboard, such as completing an assignment or a taking a quiz. Logging into Blackboard is **NOT** considered attendance. Please see my enrollment verification activity and complete it by the date indicated. If it is not complete your enrollment in this course will be at risk.

Proctor Notification:

A proctor is not required for Chem 121 Lab.

Important Student Information

Navigate to Blackboard > MaSU tab > Student Resources tab to find a document entitled, "Important Student Information," which includes information about:

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

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

Course Timeline/Schedule:
The following is a schedule of due dates.

Introduction Forum	September 4th	On HOL	11:59p.m. cst
Getting Started	September 11th	On HOL	11:59p.m. cst
Laboratory Safety	September 11th	On HOL	11:59p.m. cst
Lab Techniques and Measurements	September 25th	On HOL	11:59p.m. cst
States of Matter	October 2nd	On HOL	11:59p.m. cst
Anions, Cations, and Ionic Reactions	October 9th	On HOL	11:59p.m. cst
Identification of Gases	October 16th	On HOL	11:59p.m. cst
Molecular Modeling and Lewis Structures	October 23rd	On HOL	11:59p.m. cst
Solubility and Solubility Curves	October 31st	On HOL	11:59p.m. cst
Chemical Reactants	November 6th	On HOL	11:59p.m. cst
Limiting Reactants	November 13th	On HOL	11:59p.m. cst
Stoichiometry of Precipitation Reaction	November 20th	On HOL	11:59p.m. cst
Titration for Acetic Acid in Vinegar	November 27th	On HOL	11:59p.m. cst
Antacid Analysis and Titration	December 4th	On HOL	11:59p.m. cst
Boyle's Law	December 11th	On HOL	11:59p.m. cst

Final Test: None

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