

**MAYVILLE STATE UNIVERSITY**  
**CHEM 122 General Chemistry II Online**  
**Jeff Hovde**  
**Spring 2020**  
**Semester Hours: 3**

---

**Contact Info:****Office Ext.:** 701-788-5291**Office:** SB 130 A**Email:** [jeffrey.hovde@mayvillestate.edu](mailto: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 122 we will study the basic properties of liquids, solids, and solutions, types of chemical reactions, how to influence the rate of a chemical reaction and the extent of a chemical reaction, how these influences relate to the energy of the system, and a brief preview of organic chemistry.

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 II 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, and developing a general appreciation of chemistry (and science) and its role in today's society.

**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) Stoichiometry

- b) Equilibriums
  - c) Acids and Bases
  - d) Thermodynamics
  - e) Chemical Kinetics
- 2) Identify chemical substances and reactions
  - 3) Compare and contrast chemical processes and reactions
  - 4) Calculate chemical equations and reactions

### 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:

<input type="checkbox"/> introduces SLO #	<input checked="" type="checkbox"/> introduces SLO #3	<input checked="" type="checkbox"/> introduces SLO # 4	<input type="checkbox"/> introduces SLO #
<input checked="" type="checkbox"/> reinforces SLO #1	<input type="checkbox"/> reinforces SLO #	<input type="checkbox"/> reinforces SLO #	<input type="checkbox"/> reinforces SLO #
<input type="checkbox"/> masters SLO #	<input type="checkbox"/> masters SLO #	<input type="checkbox"/> masters SLO #	<input type="checkbox"/> masters SLO #
For Major / Minor:	For Major / Minor:	For Major / Minor:	For Major / Minor:
<input type="text" value="Chemistry"/>	<input type="text" value="Chemistry"/>	<input type="text" value="Chemistry"/>	<input type="text"/>

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 Materials

(Text) **General Chemistry**, 4<sup>th</sup> Edition (2011), McQuarrie, DA, Rock, PA and Gallogly, EB, University Science Books, Mill Valley, CA.

Internet connectivity is required. Course materials are available in MSU's current learning management system and web-based homework system, Sapling Learning.

### Sapling learning access

Please go to [www.saplinglearning.com/login](http://www.saplinglearning.com/login) to log in or create an account. The following link includes detailed instructions on how to register for your course: <https://community.macmillan.com/docs/DOC-5972-sapling-learning-registering-for-courses>.

Please choose ONLINE as a key code during enrollment.

During sign up or throughout the term, if you have any technical problems or system questions please fill out the support request form, located in the College Student Support Community, <https://community.macmillan.com/community/digital-product-support/college-students-support-community>, for direct assistance.

*Study Aids:*

**Student's Solutions Manual to Accompany General Chemistry**, 4<sup>th</sup> Edition (2011), McQuarrie, CH, University Science Books, Mill Valley, CA. (recommended/not required)

#### **Learning Experiences**

- Assignments will be given via the Detailed Schedule. Submit all assignments in Blackboard or Sapling on designated due dates.

#### **Expectations/Protocols**

**There will be NO make-up quizzes or tests given unless I have been contacted prior to the day of the test with a valid excuse. There are very few valid 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.**

**I will reply to all student emails within 48 hours. 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 accept no late work and give no make-up exams.
- I will grade your work within 1 week.
- Assignments are not weighted.
- I will communicate through email and announcements in Blackboard.

#### **Course Grading:**

Homework: 180 pts

Tests: 230 pts

**Introduction Forum 10 pts**

**Total Points: 420 pts**

90 – 100%	A
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:**

All exams will be completed using the program Yuja as your proctor.

**Important Student Information**

**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	January 17 <sup>th</sup>	On Blackboard	11:59p.m. cst
HW #14	January 24 <sup>th</sup>	On Sapling	11:59p.m. cst
HW #15	January 27 <sup>th</sup>	On Sapling	11:59p.m. cst
HW #16	January 31 <sup>st</sup>	On Sapling	11:59p.m. cst
Exam 1	February 3 <sup>rd</sup>	On Blackboard	11:59p.m. cst
HW #17	February 28 <sup>th</sup>	On Sapling	11:59p.m. cst
HW #18	March 3 <sup>rd</sup>	On Sapling	11:59p.m. cst
HW #19	March 7 <sup>th</sup>	On Sapling	11:59p.m. cst
Exam 2	March 10 <sup>th</sup>	On Blackboard	11:59p.m. cst
HW #20	April 14 <sup>th</sup>	On Sapling	11:59p.m. cst
HW #21	April 18 <sup>th</sup>	On Sapling	11:59p.m. cst
Exam 3	April 21 <sup>st</sup>	On Blackboard	11:59p.m. cst
Final Exam	May 2 <sup>nd</sup>	On Blackboard	11:59p.m. cst

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