

# Chemistry 110 – Fundamentals of Chemistry

Fall 2020

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**Office hours:**

by appointment in Zoom *{check web page}*

**Required Material:**

“Introduction to Chemistry”  
<http://chembits.com/GOBchem/introduction-to-chemistry-general-organic-and-biological.pdf>  
Reliable internet access  
A computer, tablet or other technology capable of accessing D2L

**CHEM 110 – Fundamentals of Chemistry (3cr)** Students will study fundamentals of chemistry with laboratory applications. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts and demonstrate basic laboratory skills necessary for success in college-level science courses. MnTC Goal 3.

**Course Objectives:** By the end of the semester, you should be able to:

1. Recognize the difference between ionic and covalent compounds.
2. Write the names and formulas of compounds commonly encountered in the field of health care.
3. Define the various measures of concentration and should be able to correctly use them in calculations.
4. Describe the concepts of pH, buffers, the difference between acids and bases, and be able to calculate the pH or the hydrogen ion concentration given relevant information.
5. Describe the property of gases, the relationships between gas pressure, volume, and temperature, and also be able to use them correctly in calculations.
6. Correctly use significant figures in calculations.

## Grading:

Points in this course will come from:

Course orientation assignment(s)	10pts
Chapter Homework (20x5pts)	100pts
Chapter Quizzes (20x10pts)	200pts
Section Quizzes (3x50pts)	150pts
<u>Final Quiz</u>	<u>50pts</u>
<i>Lecture Points</i>	<i>510pts</i>

Tentative grade assignments are: A = 90-100%, B = 80-90%, C = 70-80%, D = 60-70%. These cutoffs *may* be lowered at the instructor's discretion, but they will not be raised.

## Basic Expectations:

- **Read the book** – Your book is a valuable source of information, please be sure to use it. The book is free, so you should always have access to it; I strongly recommend downloading it so you will not have to rely upon constant internet access for the textbook.
- **Manage your time** – For most students (and instructors!), the biggest challenge in an online class is managing time and tasks effectively. Think about your non-class schedule and make sure you devote an appropriate amount of time to this class. Due dates have been established to help keep you on track, be sure to keep up with the course. The topics and materials build upon each other and require practice to master. You are welcome to work ahead.
- **Be positive and respectful** – This class should be a safe space for us all to learn chemistry. If someone makes a mistake, we should all work together to learn the material better.
- **Life happens** – Although I expect fully engaged participation, we all know that sometimes life jumps up and puts a dent in our plans. If something comes up that will impact your ability to be fully engaged or make it difficult to meet a deadline, let me know as soon as you can.

## Academic Honesty:

Academic dishonesty in any form will not be tolerated and will be reported to the Dean of Students Office and your major department for further disciplinary action. Any points-eligible activity will earn a grade of zero for any academic honesty violation and may result in a failing grade for the course. For a full description of the MSUM Student Conduct Policy, please see the Student Handbook. { [www.mnstate.edu/student-handbook/](http://www.mnstate.edu/student-handbook/) }

**Accessibility Resources:** Minnesota State University Moorhead is committed to providing equitable access to learning opportunities for all students and strives to make courses inclusive and accessible in accordance with sections 504 and 508 of the 1973 Rehabilitation Act and the Americans with Disabilities Act. The University will make reasonable accommodations for students with documented disabilities. Accessibility Resources (AR) is the campus office that collaborates with students in need of accommodations and assists in arranging reasonable accommodations. If you have or think you may have a disability, please contact AR at (218) 477-4318 (V), (800) 627-3529 (MRS/TTY), or stop by to schedule an appointment with the Director of AR in 154C Flora Frick Hall. Please also contact AR if you are currently registered for services and have concerns. Additional information is available on the AR website: <http://www.mnstate.edu/accessibility>. The ADA Coordinator for students and ADA compliance issues is Kara Gravley-Stack, Dean of Students; (218) 4772391, [Kara.GravleyStack@mnstate.edu](mailto:Kara.GravleyStack@mnstate.edu), or 153 Flora Frick Hall.

**Sexual Violence Prevention:** Acts of sexual violence are intolerable. MSUM expects all members of the campus community to act in a manner that does not infringe on the rights of others. We are committed to eliminating all acts of sexual violence. MSUM faculty and staff are concerned about the well-being and development of our students. We are obligated to share information with the MSUM Title IX Coordinator in certain situations to help ensure that the students' safety and welfare is being addressed, consistent with the requirements of the law. These disclosures include but are not limited to reports of sexual assault, relationship violence, and stalking. If you have experienced or know someone who has experienced sexual violence, services and resources are available. You may also choose to file a report. For further information, contact Lynn Peterson, Title IX Coordinator, [petrsnly@mnstate.edu](mailto:petrsnly@mnstate.edu); 218.477.2967, or Ashley Atteberry, Director of Student Conduct & Resolution; [ashley.atteberry@mnstate.edu](mailto:ashley.atteberry@mnstate.edu), 218.477.2174; both located in Flora Frick 153. Additional information is available at: [www.mnstate.edu/titleix](http://www.mnstate.edu/titleix)

All students must complete the Sexual Violence Prevention Training module available in D2L by the 10<sup>th</sup> day of class. You should have been automatically enrolled in this D2L course during registration.