Chem 101 Course Syllabus

Fall 2021

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Laboratory Instructors, Section 4
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Course Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
08:00	101 Lab Sec1 CBB 220	101 Lab Sec2 CBB 220		101 Lab Sec 3 CBB 220	
09:00	101 Lab Sec1 CBB 220	101 Lab Sec2 CBB 220	101 Dis Sec 1 CBB 261	101 Lab Sec 3 CBB 220	
10:00	101 Lab Sec 1 CBB 220	101 Lab Sec2 CBB 220	101 Dis Sec 2 CBB 261	101 Lab Sec 3 CBB 220	
11:00	101 Lab Sec 4 CBB 220		OFFICE HOUR		
12:00	101 Lab Sec 4 CBB 220				
13:00	101 Lab Sec 4 CBB 220		101 Dis Sec 3 CBB 165		
14:00		OFFICE HOUR	101 Dis Sec 4 CBB 165	OFFICE HOUR	
15:00	101 Lecture SCI D101	101 Lecture SCI D101		101 Lecture SCI D101	
16:00					

Additional Office Hours can be arranged by contacting the instructor.

Course Description

Chemistry 101 is an introductory chemistry course that will cover basic chemistry concepts of atomic structure, chemical bonding, molecular theory, chemical reactions, acids and bases, organic chemistry, environmental chemistry, and biological chemistry. In addition, the nature of science, problem solving, laboratory techniques will be explored.

Chem 101 Alignment with UW-SP General Education Program

Chemistry 101 meets the requirements for the Natural Sciences portion of the Investigation Level courses of the General Education Program (GEP). The specific learning outcomes addressed are:

- Explain major concepts, methods, or theories in the natural sciences to investigate the physical world.

- Interpret information, solve problems, and make decisions by applying natural science concepts, methods, and quantitative techniques.
- Describe the relevance of aspects of the natural sciences to their lives and society.

Required Materials

- **Textbook:** *Introductory Chemistry*, 2018, Textbook available at text rental
- **Laboratory Materials**: For most of the experiments we will be using an online service provided by Catalyst Education called Labflow. You will purchase the Labflow access through the university bookstore ($42.85) or directly from Catalyst Education ($30).
- **Laboratory Goggles:** Goggles are available for purchase at the bookstore.
- **Calculator:** Basic scientific calculator (ability to perform exponential notation). Calculator function on cell phones will not be allowed during tests and quizzes.
- **Clickers** see below

This class uses "Turning Point Cloud" to do interactive polling. You will need to purchase a Turning Technologies code to participate in the class. You can do this during the registration process. You will be required to check out a clicker from the **UWSP IT Service Desk** to respond to polling.

Check out of the clicker is at the **UWSP IT Service Desk on the first floor of Albertson Hall.** Device checkout is **free of charge.**

Returning clickers: Clickers must be returned to IT Service Desk before the end of finals. Students with unreturned clickers will be billed a late fee and/or may be billed the replacement cost of the clicker.

For Service Desk hours: http://www.uwsp.edu/infotech/Pages/HelpDesk/default.aspx

You will need your UWSP Student ID to get your clicker.

Turning Point Account

You will need to create or connect your Turning Point account through the Course in Canvas. Click on the Turning Point account activation link in the course in Canvas to get started.

You can find help with Turning Point Cloud here:

https://help.turningtechnologies.com/

Canvas

All materials for the course will be available on Canvas. Materials include all lecture presentations (Power Points), problem sets and answers, and additional materials needed to complete the course. In addition, concept quizzes will also be administered on Canvas.

Office Hours

Please feel free to contact me with any questions regarding the course through e mai.. Office hours are posted on the Course Schedule. A Zoom help session to answer your questions can easily be arranged. Just remember, communication is often the key to success.

Policies and Procedures

Course Design

Lecture: During the lecture sessions you can expect that concepts will be introduced and explained through presentations, demonstrations, and other means. Main ideas that will guide the student to understand the concepts will be presented and problem solving demonstrated. You can expect that attendance at the lecture sessions will be a great help when working through the material. Your attendance is expected but ultimately is your responsibility.

Discussion: During discussion sessions concepts covered during that week will be explored through demonstrations, role playing, and problem practice and review. Quizzes will also be given during these sessions.

Laboratory: Laboratory experiments are related to the concepts discussed in lecture and designed to provide practical examples of those concepts. **You cannot receive a grade higher than a "C" in this course without earning at least 50% of the possible points in the laboratory.** Late laboratory reports will be assessed a 10% score deduction if less than one week late and unacceptable later than one week.

Examinations: There will be three, one-hour exams given during the semester, plus a two-hour final exam. The hour exams cover material since the last exam, **the final is cumulative**. All exams, except the final, will be given during the regularly scheduled lecture sessions. No make-up exams will be given without prior approval.

Quizzes: Concept Quizzes will be accessed through Canvas asynchronously. Once assigned they will remain open for one week. Discussion Quizzes will be given during the Discussion Sessions. The quizzes cover lecture material, assigned readings and problems from the end of text chapters. The lowest Discussion session quiz and Concept quiz scores will be dropped.

Problems and Text Readings: Textbook references will be given for each topic. These readings will often contain more information than covered in lecture and it is to your advantage to review this material. Problems at the end of text chapters are designed to help you understand the concepts and provide necessary practice to develop proficiency.

Grading: The course grade will be determined by the sum of the points received form the following:

Hour Exams and Final	60 %
Quizzes	15 %
Laboratory Reports	25%

The grading scale cutoffs will be as follows: A: 93 - 100 %, A- : 90 – 92.9, B+: 87 – 89.9%, B: 83 - 86.9%, B-: 80.0 – 82.9%, C+: 77 – 79.9%, C: 73 -76.9%, C-: 70 -72.9%, D+ 67- 69.9%,, D: 60.0 – 66.9%, F< 60%. Please note that at Laboratory grade of at least 50% must be earned in the laboratory for a C grade in the course, regardless of the total points received.

Student Rights and Responsibilities

UWSP values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, we have developed a set of expectations for all students and instructors. This set of expectations is known as the Rights and Responsibilities document, and it is intended to help establish a positive living and learning environment at UWSP. Click here for more information: http://www.uwsp.edu/stuaffairs/Pages/rightsandresponsibilities.aspx

Academic integrity is central to the mission of higher education in general and UWSP in particular. Academic dishonesty (cheating, plagiarism, etc.) is taken very seriously. Don't do it! The minimum penalty for a violation of academic integrity is a failure (zero) for the assignment. For more information, see the UWSP "Student Academic Standards and Disciplinary Procedures" section of the Rights and Responsibilities document, Chapter 14, which can be accessed here:
http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf

Disability Services

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. For more information about UWSP's policies, check here: http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf

If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center and then contact me at the beginning of the course. I am happy to help in any way that I can. For more information, please visit the Disability and Assistive Technology Center, located on the 6th floor of the Learning Resource Center (the Library). You can also find more information here: http://www4.uwsp.edu/special/disability/

Tutoring and Learning Center

The Tutoring-Learning Center (TLC) offers **FREE** tutoring to support you in your STEM classes. The tutors are UWSP students who have done well in their classes and who are here to share their successful study habits and content knowledge to help others succeed. Discussing concepts and practicing problems together clarifies and solidifies knowledge, and the tutors are eager to study with you. If you have questions about the schedules or would like to make an appointment, please visit the TLC in ALB 018 (library basement), email (tlctutor@uwsp.edu), or call (715) 346-3568.

STEM Tutoring – Fall 2021

What	Location	Schedule	Cost

STEM Drop-In Tutoring	CBB 190	No appointment needed – stop by when tutors are available: https://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx.	Free
STEM One-on-One Tutoring	ALB 018	By appointment. Visit ALB 018 (library basement) to make a request or complete online request form here: https://www.uwsp.edu/tlc/Pages/request-math-science-tutoring.aspx.	Free

Chemistry 101, Fall 2021
Proposed Course Schedule

WEEK	TOPIC	READING	EXAMS	Laboratory*
1	Nature of Science and Measures	Ch.1 and 2		NO LAB
2	Numbers, Particles of Matter, Gases	Ch. 2		**"Safety" and "Conversion Factors and Problem Solving"
3	Elements of Chemistry Nomenclature	Ch. 3 and 5	Quiz 1 (Discussion)	Density and Specific Gravity
4	Subatomic Particles	Ch. 4		Separating the Components of a Mixture
5	Bohr Atomic Model Bonding	Ch. 4 Ch. 5 and 9		Visible Spectra and the Nature of Light
6	Bonding How Molecules Mix	Ch. 5 and 9 Ch. 10	Oct. 7 EXAM 1	UW-SP Exp 5 (Not Labflow) Hydrates
7	How Molecules Mix Molecular Polarity	Ch. 10		UW-SP Exp. 6 (Not Labflow) Molecular Models
8	How Water Behaves Chemical Reactions	Ch. 10 Ch. 7	Quiz 2 (Discussion)	UW-SP Exp 7 (Not Labflow) Preparation and Properties of Soap
9	Chemical Reactions Reaction Rates	Ch. 7 Ch. 8 and 13	Oct. 28, EXAM 2	Chemistry of Copper and Percent Yield
10	Reaction Rates Acids and Bases in Our Environment	Ch. 8 and 13 Ch. 12		Chemical Reactions and Equations
11	Acids and Bases in Our Environment	Ch. 12	Quiz 3 (Discussion)	LeChatelier's Principle
12	Organic Compounds	Ch. 15		Aspirin and Other Analgesics
13	Organic Compounds	Ch. 15	Quiz 4 (Discussion)	NO LAB
14	Biomolecules	Ch. 15	Dec. 2, EXAM 3	Energy and Specific Heat
15	Biomolecules	Ch. 15		NO LAB
	Final Exam TBA			

* All experiments are Catalyst Education Labflow except week 6, 7 and 8. ** Virtual only