

**Chem 113**  
**Introductory Chemistry**  
**Winter Session 2019/2020**

**Instructor:** Dr. Michael J. Hankins  
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**COURSE DESCRIPTION:**

**Chem 113** is an online lecture course of the fundamental concepts in chemistry through the discussion of the structure of matter, atomic theory, simple chemical calculations, and the nature of chemical reactions.

**COURSE GOALS:**

1. Develop critical thinking skills that lead to the understanding of basic chemical principles.
2. Build confidence in learning and understanding chemistry
3. Appreciate chemistry and its relevance to our daily lives
4. Prepare for the upper-level classes

**COURSE OBJECTIVES:**

1. Recognize reaction types and balance reactions accordingly
2. Generate solution maps from given initial units.
3. Create conversion factors using stoichiometric coefficients
4. Recall key properties and functions of chemicals
5. Use the periodic table to predict ion formation of elements and synthesize electron configurations

**TEXTBOOK:**

**Introductory Chemistry** by Nivaldo J. Tro , 6<sup>th</sup> ed.

**Mastering Chemistry Software**

- will also be provided with the book
- instructions for login provided on Blackboard

**COURSE REQUIREMENT:**

Each student **MUST HAVE** unlimited access to a computer with stable internet access, a webcam, microphone, and speakers.. The computer must also have Adobe Acrobat Reader™, QuickTime (available free online), and Microsoft Office™. Currently enrolled students can download and install Microsoft Office on up to five computers by visiting: <http://office365.siue.edu>. You will need to use your full SIUE email address (NOT just your e-ID) and e-ID password to log in. The subscription also includes full access to MS Office applications for iPhone and Android devices.

## **TECHNOLOGY REQUIREMENT:**

At a minimum, you will need the following software/hardware to participate in this course:

- Computer with an updated operating system (e.g. Windows, Mac, Linux)
- Updated Internet browsers ([Apple Safari](#), [Google Chrome](#), [Mozilla Firefox](#)). See [Blackboard's Browser Checker page](#) to see if your browser and operating system are compatible with Blackboard.
- DSL or Cable Internet connection or a connection speed no less than 6 Mbps.
- Media player such as, QuickTime or Windows Media Player.
- [Adobe Reader or alternative PDF reader](#) (free)
- [Java plugin](#) (free)
- Any other specialized software or basic software (e.g., Microsoft Office, Adobe Photoshop). SIUE students can [download MS Office](#) at no charge

## **TECHNOLOGY CAPABILITIES**

Students in an online course should be able to:

- Use a word processor, such as MS Word, to compose assignments and communicate with others in class
- Attach files to emails or course areas
- Navigate websites and course materials
- Reach out to tech support staff when issues arise and troubleshoot to resolve problems

## **GRADING POLICY:**

### ***Distribution out of 530 total points***

Quizzes: 25% (13 quizzes, 10pts each, 130pts total)

Exams: ~75% (4 exams, 100pts each, 400pts total)

Discussion posts on Blackboard: Up to 10pts extra credit per week (5 for each post/reply)

### ***Scale***

A	≥ 85%
B	≥ 75%
C	≥ 65%
D	≥ 55%
F	< 55%

**Grading System.** At any time in the semester, you may calculate your grade by dividing your accumulated point total by the total possible points and converting it to percentage. You can find your grade by clicking the My Grades link on the left menu of the Blackboard course.

**Blackboard Login:** When logging into Blackboard use your University e-ID and password. If you have never used your University login name go to the following website to register: <http://www.siu.edu/e-ID/>. Note that all e-ID passwords must be changed every 60 days. In order to change your password online you must know your old password. If you do not

remember your old password, you will need to go to the ITS offices located in the basement of Lovejoy with a photo ID in order to change it

### **DISCUSSION POSTS:**

The discussion will be done using Blackboard. There is a Discussion tab on the left menu of the Blackboard course. I will be active in monitoring and adding posts for the discussion (at least once a week). The following rules apply to using the discussion:

1. Do not post exam, quiz, or mastering chemistry assignment problems. Doing so could result in loss of extra credit opportunities, loss of points from assignment copies, and dismissal from the course
2. You may post homework problems (from the textbook)
3. Science posts related to chemistry are welcomed and greatly appreciated! (ex: [NASA's new ion thruster](#))
4. I may occasionally post solution to common problems that people are asking

### **ONLINE CLASS BEHAVIOR:**

- **Reflect** before you post an emotional response and reread what you have written to be sure it is professional. Communicate as if your comments are printed in a newspaper.
- **Communicate** effectively.
  - Do not use all caps or multiple punctuation marks (!!!, ???, etc.).
  - Be sure to define or explain acronyms, jargon or uncommon terms so everyone can understand and participate in the discussion.
- **Sign your name.** Take responsibility for your comments in order to build a strong classroom community.
- **Foster community.** Share your ideas and contribute to ongoing discussions. Make comments that add to, not detract from, a positive learning environment for the course.
- **Be constructive.** Challenge ideas and the course content, but do so in positive ways. It's fine to disagree, but when done politely you stimulate and encourage helpful discussion, and you maintain positive relationships with fellow students.
- **Keep the conversation on topic.** Online dialogue is like conversation. If there is a particular dialogue going on, please add to it, but if you have something new to say, start a new thread.

### **ASSIGNMENTS/QUIZZES:**

The Mastering Chemistry Assignments and Quizzes are meant to help you review the information learned from the lectures/book. You may use your notes/book, however since additional help is allowed, the questions will require critical thinking to arrive at the correct answer.

### **EXAMS:**

This course will only cover topics that were discussed in the online lectures. Exams will be timed for **60min** once started. Using your book/notes will slow you down during the exam so I recommend NOT using them. Make sure you have a secure internet connection before starting the exam to avoid incompletions. If you feel that you need more time due to a disability, please see the ACCESSIBILITY section for details regarding accommodations

### **MISSED ASSIGNMENTS/EXAMS:**

Due to the short, online nature of this course, there will be no make-up assignments. The due dates for the assignments are given and ample time will be given to complete the assignment. If any schedule conflicts occur, you will have to complete the assignments earlier than the

suggested schedule. Conflicts with exams should be notified in advanced of the scheduled exam. Arrangements can be made to take the exam in person or using Zoom.

### **HOMEWORK AND PROBLEM SETS**

Homework and problem sets are intended to help you prepare for examinations. However, these assignments will not be collected nor included in the calculation of your grades. Answers to problem sets will be posted on blackboard. Answers to homework assignments are available at the back of your textbooks.

### **ATTENDANCE POLICY:**

This class is online and lectures will be viewed on Blackboard

### **ACCESSIBILITY:**

Students needing accommodations because of medical diagnosis or major life impairment will need to register with **Accessible Campus Community & Equitable Student Support (ACCESS)** and complete an intake process before accommodations will be given. Students who believe they have a diagnosis but do not have documentation should contact ACCESS for assistance and/or appropriate referral. The ACCESS office is located in the Student Success Center, Room 1270. You can also reach the office by e-mail at [myaccess@siue.edu](mailto:myaccess@siue.edu) or by calling 618.650.3726. For more information on policies, procedures, or necessary forms, please visit the ACCESS website at [www.siue.edu/access](http://www.siue.edu/access).

### **OR**

It is the policy and practice of the Southern Illinois University Edwardsville to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor as soon as possible. Students are also encouraged to contact office for Accessible Campus Community and Equitable Student Support (ACCESS). The ACCESS office is located in the Student Success Center, Room 1270. You can also reach the office by e-mail at [myaccess@siue.edu](mailto:myaccess@siue.edu) or by calling 618.650.3726. For more information on policies, procedures, or necessary forms, please visit the ACCESS website at [www.siue.edu/access](http://www.siue.edu/access).

### **TECHNICAL SUPPORT:**

Since this is an online course, you are expected to have reliable Internet access on a regular basis. It is your responsibility to address any computer problems that might occur. Such problems are not an excuse for delays in meeting expectations or for missing course deadlines. Contact ITS at 618-650-5500 or at [help@siue.edu](mailto:help@siue.edu) with any technical concerns or search the [ITS Knowledge Base](#) for how-to articles and troubleshooting guides.

Tips for taking online assessments:

- Set up a wired (Ethernet) Internet connection on your computer
- Do not use a mobile device, such as a phone or tablet
- Read the instructions and directions carefully
- Be prepared to complete the assessment in the allotted time

**ADDITIONAL SUPPORT:**

As an enrolled SIUE student, you have a variety of support available to you, including:

- [Lovejoy Library Resources](#)
- [Academic Success Sessions](#)
- [Tutoring Resource Center](#)
- [The Writing Center](#)
- [Academic Advising](#)
- [Financial Aid](#)
- [Campus Events](#)
- [Counseling Services](#)

If you find that you need additional support, please reach out to me and let me know.

**ACADEMIC INTEGRITY/ PLAGIARISM:**

Plagiarism is the use of another person's words or ideas without crediting that person.

Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, or dismissal from the University, per the [SIUE academic dishonesty policy](#). Students are responsible for complying with University policies about academic honesty as stated in the [University's Student Academic Conduct Code](#).

### Chem 113 Tentative Course Schedule:\*

Week	Material to cover	Assignments due
Week of Dec. 16th	<ul style="list-style-type: none"> <li>▪ Chapter 1 (The Chemical World)</li> <li>▪ Chapter 2 (Measurement and Problem Solving)</li> <li>▪ Chapter 3 (Matter and Energy) – beginning</li> <li>▪ Chapter 3 - remainder</li> <li>▪ Chapter 4 (Atoms and Elements), Review for Exam</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quiz 1</li> <li>▪ Quiz 2</li> <li>▪ Quiz 3</li> <li>▪ Exam 1 (Ch. 1-4)</li> <li>▪ <b>DUE DATE: Dec. 23<sup>rd</sup> at noon</b></li> </ul>
Week of Dec. 23 <sup>rd</sup>	<ul style="list-style-type: none"> <li>▪ Chapter 5 (Molecules and Compounds)</li> <li>▪ Chapter 6 (Chemical Composition)</li> <li>▪ Chapter 7 (Chemical Reactions)</li> <li>▪ Chapter 8 (Quantities in Chemical Reactions)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quiz 4</li> <li>▪ Quiz 5</li> <li>▪ Quiz 6</li> <li>▪ Quiz 7</li> <li>▪ Exam 2 (Ch. 5-7)</li> <li>▪ Quiz 8</li> <li>▪ <b>DUE DATE: Dec. 30<sup>th</sup> at noon</b></li> </ul>
Week of Dec. 30 <sup>th</sup>	<ul style="list-style-type: none"> <li>▪ Chapter 9 (Electronic Structure)</li> <li>▪ Chapter 10 (Chemical Bonding)</li> <li>▪ Chapter 11 (Gases)</li> <li>▪ Chapter 12 (Liquids and Solids)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quiz 9</li> <li>▪ Quiz 10</li> <li>▪ Exam 3 (Ch. 8-9)</li> <li>▪ Quiz 11</li> <li>▪ Quiz 12</li> <li>▪ Quiz 13</li> <li>▪ Final Exam (Ch. 10-12)</li> <li>▪ <b>DUE DATE: Jan. 5<sup>th</sup> at noon</b></li> </ul>

\*Mastering Chemistry Assignments and book problems (on the last slide for each chapter) are for study purposes. They do not have to be completed to obtain a grade, but are strongly recommended.

**\*Assignments can be done early if you have the opportunity to do so. As long as they are finished before the due date and time!**

\*Disclaimer: Schedule is subject to change.

**ADDITIONAL RESOURCES:**

Go to [http://media.pearsoncmg.com/ph/esm/esm\\_tro\\_intro\\_5/iwe/index.html](http://media.pearsoncmg.com/ph/esm/esm_tro_intro_5/iwe/index.html) to see interactive examples worked out