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INTERACTIVE SYLLABUS CHEMISTRY 107: General Chemistry I

Fall 2019

Section E - Mon / Wed / Fri 11:00-11:50 AM – Pfahler 209

Instructor: Dr. Amanda Reig

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COURSE OVERVIEW

This interactive syllabus will give you a chance to **review the syllabus** before our first CHEM 107 class. You have received a copy of the syllabus by email which you should read through as you complete this survey. In addition, you will receive a printed copy of the syllabus on the first day of class and a copy will be posted to Canvas. Therefore, there is no need to take notes or copy information off of this interactive syllabus as you work through the survey.

I will use the information you provide in this survey to help **customize our class** to meet your needs and expectations. Your answers will also allow me to give you the information you most need on the first day of class.

Okay, I'm ready to get started!

What are 5 words you associate with "Chemistry".

COURSE DESCRIPTION:

CHEM 107 is the first semester of the chemistry curriculum for science majors at Ursinus College. It serves as an introduction to the subject of chemistry, where you will begin to learn the fundamental vocabulary, mathematics, and problem solving skills necessary to succeed in future science courses and careers.

Topics to be covered include atomic and molecular structure, chemical bonding, the periodic table, chemical reactions and solutions, thermochemistry, and the gas laws. Additionally, connections between the course material and everyday life will be emphasized.

When taken in conjunction with CHEM 107L, this courses satisfies the science (S) and quantitative (Q) “Ways of Asking” under Question 3 (“How can we understand the world?”) of the Open Questions Curriculum.

Why Chemistry? Chemistry is often referred to as the “central science” because it provides a bridge between the microscopic world (molecules, atoms, and subatomic particles) and the macroscopic world (cells, organisms, physiology, and disease). As you work through the general chemistry sequence, it is my hope that you will develop an appreciation for how the properties and characteristics of (sub)microscopic matter cause, and provide an explanation for, the macroscopic behavior that can be observed in the world around you.

Awesome! I now know how Dr. Reig would explain what this class is about.

LEARNING GOALS AND SKILL DEVELOPMENT:

By the end of this course, I expect that you will have developed knowledge and skills in the areas listed below.

To help me know more about your background with Chemistry, please indicate below how confident you are right now in your knowledge of the following areas.

	Not Confident	Moderately Confident	Confident	Very Confident
Understand the approaches that chemists use to learn about the world and for what types of questions this approach works best	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not Confident	Moderately Confident	Confident	Very Confident
Apply mathematical concepts to solve common problems in chemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Apply fundamental skills of observation, data analysis, and critical thinking to solve chemical problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrate knowledge of and properly use the language of chemistry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand the modern theory of atomic structure and atomic level phenomena, and connect these ideas to the macroscopic properties of matter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain modern chemical bonding theories and use them to predict molecular structure and behavior	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Find and apply information contained in the periodic table	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identify types and predict the products of common categories of chemical reactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe the various forms of energy, know the roles they play in chemical and physical processes, and perform related calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describe the physical and chemical properties of gases and perform related calculations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Above are the goals that are designated for this course. They are a combination of my hopes for you and objectives tied to the mission of Ursinus College. These objectives may or may not match your desires for this course.

Besides the objectives above; what do you want to learn and/or achieve in this class?

Course Materials

COURSE MEETING TIMES

CHEM 107: General Chemistry I is a 3 credit class that meets on Monday, Wednesday, and Friday in Pfahler 209 from 11:00 - 11:50 AM.

Great - I know where that is and your class is already in my calendar!

I know when to be there and I'm pretty sure I know where I'm going

REQUIRED BOOKS AND MATERIALS

This course has several required materials, listed below.

Chemistry: The Science in Context (5th edition) by Gilbert, et al. (WW Norton)

This is the textbook for this course. You will use the book to read about topics before coming to class, to reinforce concepts discussed during class, and to work practice problems to help prepare you for quizzes and exams. Access to the textbook is essential to success in the course, but it is available in several formats (hardback, soft-cover, or electronic) and you may purchase the version you prefer.

ALEKS (www.aleks.com/)

We will be using ALEKS assignments throughout the semester to build and check on your knowledge of the concepts we cover. You should already have an account and be nearly completed with the summer assignment. It is in your interest to complete the assignment, and the final knowledge check, prior to the first day of classes.

Vevox (www.vevox.com/)

Vevox is an interactive response system that will allow you to answer multiple choice questions in real time during class from your phone, tablet, or laptop. We will use these questions to assess prior knowledge and practice new concepts. I recommend downloading the Vevox App for your mobile device. After entering our class code (169-887-621), simply type in your name and click the textbox in the top right corner.

A scientific non-graphing calculator will be provided for you during class meetings and exams.

Please indicate if you have already purchased the book, are working on, or have finished, the ALEKS assignment, and have access to Vevox by dragging the title into the appropriate box.

Items

Chemistry: The Science in
Context (5th edition)

ALEKS

Vevox

**I have this book in my possession or
I have an account**

**I do not yet have this book or I do
not have an account**



What is your plan to get this book before Friday August 30th?

What is your plan to complete the ALEKS summer assignment before Friday, August 30th?

When do you plan to set up Vevox?

I will do it as soon as I finish this survey

I will do it after the first day of class so you can explain more about the program

Requirements and Grading

ASSIGNMENTS

This class involves a variety of assignments. Below is a brief sketch of the assignments we will complete in this class. More detailed assignment guidelines will be provided throughout the semester.

Exams: There will be three midterm exams and a final comprehensive exam. The midterm exams will be given in the evenings from 6:45-8:15 pm. Exam questions will be derived from material covered in lecture, the assigned reading, and assigned problems. To assess your ability to apply your knowledge to new situations, exam questions will not be exactly like the homework problems. Emphasis will be placed on connecting concepts and synthesizing multiple concepts within one problem. The 3 hour final exam will be cumulative and will consist of two parts: a 2 hr standardized (multiple choice) exam from the American Chemical Society and questions that I write (1 hr). Your final exam percentage will replace your lowest exam grade if beneficial to your final grade

Quizzes: To check your understanding, eleven in-class quizzes worth 5 points each will be given during the semester. For each quiz, if you are unsatisfied with your score, you may take a second quiz on the same topic the following Wednesday at noon. Your grade will be an average of the two scores. Your lowest quiz grade will be dropped. There are no make-up quizzes, but if you miss an in-class quiz, you can take the second quiz for full credit.

Preview assignments are short guided reading assignments that will be due at the beginning of class each day. They will be graded on a credit/half-credit/no-credit basis. All work on these assignments are to be completed individually. Obvious signs of copying or collaboration will result in grades of “no-credit” and will constitute an act of academic dishonesty. No late assignments will be accepted.

ALEKS is an adaptive online learning system. You will have objectives to complete by 11:59 PM each Sunday and Thursday. Completion of the objectives are worth 50% of your homework grade; your 3 lowest percentages will be dropped. As you work through the objectives, you will fill in your ALEKS "pie". The percent of the pie completed by 5:59 pm on Thursday, Dec. 12th will account for the remaining 50% of your grade.

S-CORE assignments: This course fulfills the Science "Way of Asking" CORE requirement. During the semester, you will be asked to complete assignments that address how scientists "understand the world" and allow you to reflect on the roles of theory, observation, hypothesis development, prediction, and data collection and validation in the accumulation of scientific knowledge.

Recommended Problems: Additional recommended but ungraded problems will be assigned throughout the semester. It will be imperative for you to work the suggested problems in addition to the ALEKS assignments to do well in the course, and it would be wise not to leave these until the night before the exam. These problems will be posted by chapter, and may appear verbatim or with slight modification on quizzes or exams. If you are struggling with the recommended problems, you are strongly encouraged to seek help in office hours, at PASS sessions, or get a tutor.

What questions do you have about the assignments for this course?

GRADING

Your grade will be calculated on a point total basis as follow:

Exams (3 x 100 pts)	300 pts
Quizzes (10 x 5 pts)	50 pts
Preview Assignments	25 pts
ALEKS (Homework)	80 pts
S-CORE Assignments	45 pts
<u>Final Exam</u>	<u>150 pts</u>
Total	650 pts

I understand that taking initiative to earn the grade that I want in this class is essential. I understand that there are minimum requirements for certain grades, and that I have some leeway to make decisions to determine how I earn the grade that I will receive.

I understand that I have to take initiative to earn my grade, but I'm pretty confused by this grading policy. I have some questions.

What grade do you hope to earn in this class?

What is your plan to help achieve this grade? Several suggestions are provided on page 5 of the syllabus. Be specific in your answer here.

SCHEDULE

Tentative Fall Semester Schedule

The schedule found on Page 3 of the syllabus is subject to change at the discretion of the instructor. Students will be notified and an updated schedule will be available on Canvas. The dates of canceled classes (Sept. 20, Oct. 23, and Nov. 20) are tentatively canceled and may be moved at the discretion of the instructor. These classes are canceled to offset the time used for the exam in the evenings. Please note the quiz dates, which are almost every Friday.

I will keep up with the material as outlined by this schedule. I understand if I have purchased a different edition of the textbook that the section numbers and assigned problem numbers may differ.

FINAL EXAM REMINDER

The exam date is **Thursday December 12, 2019 at 6:00-9:00 PM** in Olin Auditorium. The 3 hour final exam will be cumulative and will consist of two parts: a 2 hr standardized (multiple choice) exam from the American Chemical Society and questions that I write (1 hr).

Arrive early to find your seat and settle in the exam begins promptly at 6 PM!

Thanks for letting me know when the final exam is. I will not schedule travel, activities, or work during this time.

Communicating with Dr. Reig

OFFICE LOCATION

My office is located in Pfahler 205A, just down the hall from our classroom. There is a nice study area just outside my office that you are welcome to use at any time.

Great - I know where that is and will stop by during the first week of class to introduce myself! I'm not sure where that is yet, but I will find it during the first week of class so I can introduce myself.

OFFICE HOURS

I do my best to be available to students when they want to meet with me. My general availability is Monday, Wednesday, and Thursday afternoons, Monday, Wednesday, Friday mornings. You are welcome to stop by my office any time to see if I am available, but to ensure I will be around, you can check my schedule at this link: <https://bit.ly/2wn5Th7>. You are also more than welcome to email me to set up a specific meeting time, which will guarantee my availability.

Got it - I bookmarked your calendar link so I know when I might be able to find you in your office and will send you an email if I want to set up a meeting.

EMAILS

Reading and replying to your emails is an essential part of being a successful college student, and someday a successful professional

I commit to reading and replying to emails related to this course.

I hate email, but I'll try my best.

How can Dr. Reig and your colleagues in this class help support you in learning to be a better emailer?

Course Policies

ACADEMIC/PERSONAL CONDUCT

It is expected that all students enrolled in this course will abide by all university policies pertaining to academic dishonesty, drop/add procedures, and grade appeals as outlined in the college catalog. Please ask if you have questions about any of these policies, which can be found [here](#) and in the [Student Code of Conduct](#). Sign below to acknowledge you understand these policies.

×

SIGN HERE

clear



ATTENDANCE

Regular attendance at class sessions is essential for successful completion of this course. The attendance policy has been outlined in the *Ursinus College Student Handbook*. Absences from exams due to Ursinus-sponsored academic or athletic events must be discussed with the instructor at least 3 days in advance of an exam date. *No make-ups* for in-class work or missed quizzes will be given.

I understand the course attendance policy and will be in touch if I need to miss a class.

MEDIA/TECHNOLOGY IN THE CLASSROOM

Mobile devices, tablets, or laptop computers may be used to answer the interactive response questions using Vevox in class. However, please refrain from texting, web browsing, or other unproductive uses of your device during class as it is distracting to both you and your fellow students.

Your cell phone is **not** an acceptable calculator for this course. Use of a cell phone during a quiz or exam will result in an automatic zero for that assignment.

Will you be using an electronic device to take notes during class?

Yes

No

Sometimes



Created by Edward Thomson
www.ksar.com

Since you plan to use a laptop or tablet to take notes, what is your plan to ensure that your computer does not become a distraction to you or those sitting around you?



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www.ksar.com

CLASS CANCELLATION POLICY

Do not assume that class has been canceled in the case of inclement weather. In the unlikely scenario that I am unable to make it to campus, I will notify the class through email.

If the weather is bad, I know where to look to find out if we are still having class.

Student Success

HOW WILL THIS COURSE BE TAUGHT?

During class: Material will not only be discussed as a lecture but also incorporate several in-class activities primarily using problem sets. Your active participation in class is imperative to your learning, not just attendance. Because ALEKS assignments focus on the fundamental material for each chapter, lecture class will be primarily devoted to applying these concepts. Take advantage of class time to ask questions! Come to class prepared by reviewing the required reading before attending lecture.

Outside class: The 150 minutes spent in class is a small portion of the total time you should commit to class. The material covered in this class will build on itself. To prevent falling behind, make sure to keep up with the reading and ALEKS assignments. You will also need to complete the recommended problems that are more challenging on a routine basis. You may find it useful to form small study groups with your classmates but all *graded work must be completed individually* and not in groups.

To come prepared, I should review my textbook and ALEKS. That way, I can use the 150 minutes of class time most effectively.

PASS SESSIONS

Peer-Assisted Study Sessions (PASS) is a form of group tutoring designed to help you work through the chemistry concepts covered in this course. PASS is a fun way to study and regular attendance of the one-hour weekly meetings will afford you time to review concepts, practice study skills, and get to know your classmates better. PASS instructors do not re-teach the material, so you must come to meetings prepared to try practice problems, interact with other students, and try new things.

I strongly encourage you to participate in the PASS program. You will receive more information about PASS from Nick Hanford, or you are welcome to contact him at nhanford@ursinus.edu. Regular attendance at a PASS session is required in order to obtain an individual tutor.

I definitely plan to attend weekly PASS sessions

We will see if I feel like I need the extra help

I don't plan to attend

TUTORING

The Ursinus Institute for Student Success offers free tutoring services for all students. Information about obtaining a tutor is available at bit.ly/ursinustutoring. Tutors do not replace regular class attendance or guarantee a better grade, but they can help you become a better student. To get the most out of your tutoring sessions, you should prepare questions for your tutor and bring notes, textbooks, and other class materials.

Thanks - if I find myself struggling in this class, I will sign up for tutoring right away!

DISABILITIES & ACCOMMODATIONS

Ursinus College is committed to ensuring equal access and providing reasonable accommodations for students with disabilities. Students requesting academic accommodations must meet with the Director of Disability Services at the Institute for Student Success in Lower Wismar. At the beginning of each semester, qualifying students must meet with the Director of Disability Services to reinstate accommodations and pick up their accommodations letters. Students are responsible for presenting their letters to their professors. For more information, see: [Ursinus College Disability Services](#) or contact Shammah Bermudez, Director of Disability Services (484-762-4329; sbermudez@ursinus.edu).

I understand the course accommodation policy.

Final Details



What is your Ursinus College email address?

What is your first name and last name?



If you have a preferred name other than that listed on my course roster, please let me know below.



What are the 3 most important things to remember from this course syllabus?



Created by jklmnop/qrst from Noun/Project



Created by jklmnop/qrst from Noun/Project

What are 3 questions you still have about this course?



What are your gendered pronouns (e.g., ze, they, she, he)?



Created by Nick Adams
from SurveyLegend

Is there anything I need to know about you that may impact your experience in the class? Feel free to leave this blank and/or speak with me in person. Please do know I am a mandatory reporter with regard to sexual assault (meaning if you disclose a sexual assault or a related crime I am required to report it to the University).

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