

General Chemistry for Engineering Students, CHEM 107-506, Fall 2022
Tuesdays and Thursdays from 11:10 A.M.-12:25 P.M. in ILCB 113

Prof. Charles M. Folden III

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979-845-1411, ask for Charles Folden

Office Hours: Tuesdays 1:30-2:30 P.M.,

Wednesdays 2:00 P.M.-3:00 P.M., and by appointment.

All office hours are on Zoom.

IA: Sarah M. Loftin

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979-845-1411, ask for Sarah Loftin

No Office Hour

Course Description

Chemistry is the study of the properties and behavior of matter. Chemistry is related, via atoms and molecules, to all areas of science and engineering. Chemistry 107 will provide you with a background in concepts and principles of chemistry that will serve as important building blocks as you continue your studies at Texas A&M. More importantly, an understanding of chemistry will help you to better understand the matter that makes up the world that you live in.

Course Prerequisites

Prerequisites: None.

Corequisite: CHEM 117 (The corresponding laboratory course).

Course Learning Outcomes

Many of the learning objectives for this course are related to specific topics that will be introduced in each chapter. However, the learning objectives below are more general in nature and will be stressed throughout the entire semester.

- Acquiring Factual Knowledge: Achieving basic chemical literacy requires familiarity with chemical terms, structures, and symbols.
- Developing a Conceptual Understanding: Learning to visualize, explain and predict the behavior and properties of matter on the molecular scale is the basis of a conceptual understanding of chemistry.
- Applying Knowledge to Solving Problems: Developing problem-solving skills in chemistry typically involves employing quantitative calculations within the context of a particular concept.
- Analyzing Results: Learning to compare and contrast one set of results to another is the first step in being able to evaluate the results.

Chemistry 107 Strategies for Success

Regardless of your background in chemistry, you can succeed if you adopt the best practices listed below. The study habits that you adopt in chemistry will also help you be successful in other classes.

- Participate in class. Focus on the topic, turn off devices, take notes, ask questions, and answer questions.
- Be aware of the learning outcomes at all times. (See the list above).
- Practice problems frequently. The more problems you practice, the easier chemistry will be.
- Seek help when you need it. There are many resources that are available to you.
- Understand that, in college, *you* are responsible for your education.

Location

All lectures will be held in ILCB 113.

Course Materials and Resources

The required materials for CHEM 107 are listed below. You can purchase materials at sites.google.com/tamu.edu/chemfyp/home. Each of these materials has been carefully selected to help you be successful. When registering for electronic materials, please use your **Texas A&M e-mail address** and your **Texas A&M 9-digit UIN number**. Links to electronic materials can be found in the text below and within the Canvas course site. Please register for all materials prior to the first day of class.

Textbook: The CHEM 107 textbook is *Chemistry for Engineering Students* by Lawrence Brown and Thomas Holme, fourth edition. It can be purchased along with the **Cengage Online Web Learning (OWL)** software. Go to owlv2.com/fa107.html, search for our section number and Prof. Folden's name. Click on "Register" and follow the steps indicated. If you choose to purchase the textbook from another source, please be aware that may still have to purchase the OWL online homework package. Textbooks purchased at the university bookstore should include an OWL code within the textbook bundle, but will likely be more expensive than at the website listed above. **When registering for access to the e-book and OWL software, please use your 9-digit UIN number as your ID number and the Course Key EYQD98YQQ7YJQ6.**

Calculators: Scientific calculators will be used daily in class and on exams. Calculators may be either programmable or non-programmable. Calculators that are part of internet enabled devices will not be allowed during exam periods.

iClicker Polling Subscription: Polling enhances the large class classroom experience by encouraging participation and allowing for instantaneous assessment. To participate in daily graded polling sessions, you will need to purchase an iClicker subscription. You can purchase a six-month iClicker subscription for \$5.99 and download the accompanying app from store.macmillanlearning.com/us/storefront/201801213. Create your iClicker profile at student.iclicker.com and use your 9-digit UIN as the student ID. Finally, you will need to add our course by going to join.iclicker.com/AELFM.

Learning Management System

All course material will be posted on canvas.tamu.edu. Use your NetID to log in.

Email

All course correspondence must be communicated via email. You are required to check your email every day. Messages will only be sent to your official Texas A&M email address. Please include your first name, last name, and UIN in all correspondence with the instructors. Correspondence received using any other format (such as social media) will NOT be read, answered, or acted upon.

Grading Policy

The grading scheme is given below. It is very unlikely that extra credit will be offered.

Midterm Exam	20%
Final Exam	20%
Quizzes	20%
Homework	25%
In-Class Polling (iClicker Questions)	15%
Total	100%

Course letter grades will be assigned according to the scale in the table below. These cutoffs may be lowered, but will not be raised under any circumstances.

A: at least 90%
B: at least 80%
C: at least 70%
D: at least 60%
F: below 60%

You must have the correct answer for the correct reason (including correct units) to receive full credit on any assignment. There will be *no* bonus for class attendance, although students are required to attend all classes activities.

Late Work Policy

Late work will only be accepted after the assignment due date with permission from the instructor. However, any make-up work associated with excused absences (see *Make-Up Work* and *Attendance* sections of this document) will be accepted after the assignment due date. With the exception of exams, you do not have to complete all assignments in a single category to receive the maximum weight assigned to that category. Additional information for each assignment category can be found below.

Course Assignments and Assessments

Polling Exercises will be given during each class period. Polling questions are designed to give you instantaneous feedback about your factual knowledge, conceptual understanding or problem-solving ability.

OWL Homework assignments are designed to help you assess your understanding of Chemistry 107 material. Homework assignments will be assigned in the Cengage Online Web Learning (OWL) portal and will be due on Sunday nights at 10:00 pm. Each of the 14 homework assignments will be worth 12 points. The maximum number of homework points that can be earned for credit this semester is 150.

Quizzes offer you a chance to assess your understanding and to practice your test-taking skills. You will be assigned six 40-minute biweekly quizzes in Canvas. The lowest quiz grade will be dropped. All quizzes will be proctored electronically. The quiz dates are listed on the course schedule.

Exams in CHEM 107 are designed to test factual knowledge, conceptual understanding, and problem-solving ability. A midterm exam and a final exam will be given during the semester. Exams will be in Canvas and will follow the same format as the quizzes. Both exams will be proctored electronically. The exam dates are listed on the course schedule.

Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to [Student Rule 7](#) in its entirety for information about excused absences, including definitions, and related documentation and timelines.

Attendance is required at all lectures but attendance will not be taken. Students must arrive on time. You are responsible for all material even if you are absent.

Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in [Student Rule 7](#), or other reason deemed appropriate by the instructor.

Please refer to [Student Rule 7](#) in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor ([Student Rule 7, Section 7.4.1](#)).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" ([Student Rule 7, Section 7.4.2](#)).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See [Student Rule 24](#).)

If you miss an exam, you will be required to provide suitable documentation that your absence should be excused according to University rules and regulations ([Student Rule 7](#)). You should discuss any upcoming absences with the professor *in advance*. The list of excuses in student rule 7.2 will be considered exhaustive. Students are required to treat a missed exam as a major problem requiring immediate and substantial action on their part. It is the student's responsibility to provide an excuse and to arrange to take a make-up exam. If you do not take the make-up exam within one week of returning to school then you will receive a grade of zero.

Copyright

All materials used in this course excluding textbooks are copyrighted, including but not limited to syllabi, exams, study guides, in-class materials, review sheets, additional problem sets, notes, etc. You do NOT have the right to use any materials for any other purpose outside of class, or make them available in any format to people outside of the class unless Prof. Folden grants written permission. Tutors and tutoring services are explicitly forbidden from copying any of these materials.

Software

Most of the material posted online will be in PDF format. You are required to have access to a PDF reader, and Adobe's free viewer is available for many operating systems at get.adobe.com/reader.

At all times, it is the *student's* responsibility to ensure that they are able to access course materials using their device. The instructors are NOT able to provide technical support of any kind. If you have trouble accessing course materials then please contact the [Help Desk](#).

Other Policies

Prof. Folden will answer emails received after 5:00 P.M. on the day before an assignment is due on an as available basis. This applies whether it is an exam, homework, etc. The use of electronic devices in class for entertainment (accessing social media, texting, playing games, etc.) is forbidden. You are required to remain quiet in class.

To help protect Aggieland and stop the spread of COVID-19, Texas A&M University urges students to be vaccinated and to wear masks in classrooms and all other academic facilities on campus, including labs. Doing so exemplifies the Aggie Core Values of respect, leadership, integrity, and selfless service by putting community concerns above individual preferences. COVID-19 vaccines and masking—regardless of vaccination status—have been shown to be safe and effective at reducing spread to others, infection, hospitalization, and death.

Academic Integrity

“An Aggie does not lie, cheat or steal, or tolerate those who do.”

“Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case” ([Section 20.1.2.3, Honor System Rule 20](#)).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

All of the following will be considered violations of the Aggie Honor Code in this course:

- Copying materials from previous students in the course.
- Reviewing materials from any previous instance of the class, regardless of how these materials were obtained.
- Allowing another student to do your assignment, or doing an assignment for another student. This applies whether the assignment is online or offline.
- Accessing exam questions through any site, app, or database maintained by any group. This includes any format, whether electronic or hard copy.
- Providing solutions to any assignment in a way that is accessible to any person outside your study group. The maximum size of a study group is given above.

It is the *student’s* responsibility to ensure that they are compliant with the Aggie Honor Code. The instructors are NOT able to monitor online sites and apps for compliance. If students have questions about what is and is not permissible, then they should contact the professor *in advance*.

Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources office on your campus (resources listed below). Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

Disability Resources is located in the Student Services Building or at (979) 845-1637 or visit disability.tamu.edu.

Title IX and Statement on Limits to Confidentiality

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.

With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see [University Rule 08.01.01.M1](#)):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, a person who is subjected to the alleged conduct will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University's goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with [Counseling and Psychological Services](#) (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's [Title IX webpage](#).

Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in healthy self-care by utilizing available resources and services on your campus.

Students who need someone to talk to can contact [Counseling & Psychological Services](#) (CAPS) or call the [TAMU Helpline](#) (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org.

Statement on the Family Educational Rights and Privacy Act (FERPA)

FERPA is a federal law designed to protect the privacy of educational records by limiting access to these records, to establish the right of students to inspect and review their educational records and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. Currently enrolled students wishing to withhold any or all directory information items may do so by going to howdy.tamu.edu and clicking on the "Directory Hold Information" link in the Student Records channel on the MyRecord tab. The complete [FERPA Notice to Students](#) and the student records policy is available on the Office of the Registrar webpage.

Items that can never be identified as public information are a student's social security number, citizenship, gender, grades, GPR or class schedule. All efforts will be made in this class to protect your privacy and to ensure confidential treatment of information associated with or generated by your participation in the class.

Directory items include name, UIN, local address, permanent address, email address, local telephone number, permanent telephone number, dates of attendance, program of study (college, major, campus), classification, previous institutions attended, degrees honors and awards received, participation in officially recognized activities and sports, medical residence location and medical residence specialization.

Course Schedule

The schedule is given in a separate document on Canvas.tamu.edu.