

Chem 1311 General and Quantitative Chemistry I COURSE SYLLABUS: Summer I 2024

Instructor: Mrs. Qianying Zhang (Joy)

Office: Science 336

Office Hours: Virtual office at D2L or by appointment.

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Course Information

Lectures (Web Based Class): Meets 6/3/2024 through 7/3/2024

Textbook: Burdge et al.: Chemistry: Atoms First, 5th Ed. (McGraw Hill) - ALEKS 360

Reference book: General Chemistry, 9th or 10th Edition, Ebbing, Gammon, Brooks/Cole Cengage learning.

Course description: This course is part of the University Studies core courses and will meet criteria for science credits. This is the first part of a two-course sequence of general chemistry. This course is designed primarily for the students majoring in sciences or in pre-professional programs. Topics covered include the scientific method, characteristics and transformations of matter, atomic theory, chemical reactions, the behavior of gases, an introduction to energy, bonding and shapes of molecules, and intermolecular forces Chemists deal with these topics every day, but these concepts are also crucially important to other branches of science.

Learning outcomes/Objectives: Upon completion of the course, I intend for my students to have realized a number of objectives. 1. Students will be able to analyze, evaluate, or solve problems when given a set of circumstances, data, text or art. Be able to critically analyze a chemical problem and deduce a solution to the problem utilizing step-wise processes. 2. Students will be able to interpret, test and demonstrate principles revealed in empirical data and/or observable facts. General chemistry requires good algebra skills. By the end of this course, you should be able to utilize algebraic skills to solve chemical problems. 3. In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to audience and occasion, with an evident message and organizational structure. 4. Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose.

Course Requirements (Minimal Skills Needed Prerequisite): The student must have completed Math 1314 or be concurrently enrolled in math 142. Students who had adequate high school preparation in mathematics or were exempted from Math 1314 will be allowed to enroll with the instructor's consent. Concurrent enrollment of Math 1314 with CHEM 1311 generally is not encouraged. Students who are currently enrolled in math remediation courses such as Math 131 will not be eligible for enrollment in CHEM 1311.

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Student Responsibilities or Tips for Success in the Course: This is an online class therefore attendance is flexible! You are required to access D2L while you participate various activities. Your regular participation activities, login times, visit time spent will be checked regularly. You are strongly encouraged to log into the course several times a unit. Excessive "absence" in online activities may result in loss of points (including in your overall performance points).

Pointers to Succeed 1. The lectures in this course will cover Chapters 1 through 11 of the assigned textbook. This material will be covered at the rate indicated by the Tentative Class Schedule. Be sure to read the textbook ahead the lectures. The lectures will focus on important chemistry concepts but will not serve as a substitute for reading the textbook. The textbook is a more detailed presentation with a more extensive set of example problems. Chemistry is a physical science and it is imperative to master calculations to pass the course.

2. Finish your homework promptly. Working the problems will help you succeed in the course. The more problems that you work the better prepared you will be for exams. Recommended HW problems and examples: I recommend working as many chapter end problems in the textbook as you can. The answers to the odd numbered problems can be found in the appendix of your textbook. If you can answer the odd numbered questions correctly, this will be a good indication that you understand the material and that you should be able to find success in the course.

Grading The grade for this course will be derived as follows:

Quizzes: 10% of lecture grade

Four partial exams: 80% of lecture grade

Final comprehensive exam: 10% of lecture grade

Your performance and final grade in the lecture will be evaluated on the basis of total points earned. The distribution of points will be based on the following: Quiz (10 points), which will be assigned and discussion throughout the semester. Four partial exams and one comprehensive final exam will carry 80 points and 10 points, for a total of 90 points. The final letter grade will be based on a standard scale 90-100% A, 80-89% B, 70-79% C, 60-69% D, and below 59% F.

There will be absolutely no make-ups for exams and quizzes. If you miss an exam or quiz, you will be assigned a zero for that exam or quiz.

Tentative Lecture Schedule

Week starting	Chapter	Topics
June 3	Chapters 1, 2 and 3	Chemistry and Measurement/Atoms, Molecules, and
		Ions/Chemical Formulas and Equations
June 10	Chapters 4 and 5	Exam 1, Chapters 1-3, Monday 10 th
		Chemical reactions/The gaseous state
June 17	Chapters 6 and 7	Exam 2, Chapters 4-5, Monday 17th
		Thermochemistry/Quantum Theory of the Atom
June 24	Chapters 8, 9 and 10	Exam 3, Chapters 6-7, Monday 24 th
		Electron Configuration and periodicity/ionic and
		covalent bonding/molecular structure
July 1	Chapters 10 and 11	Exam 4, Chapters 8-10, Tuesday, July 2 th
		States of Matter
		Final exam, Chapters 1-11, Wednesday, July 3th

TECHNOLOGY REQUIREMENTS LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements. LMS Requirements:

https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm Zoom Requirements:

https://support.zoom.us/hc/en-us/articles/201362023-Zoom-system-requirements-Windows-macOS-Linux

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here: https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

Communication: If the instructor needs to contact an individual student, it will be via the student's Texas A&M –Commerce email account.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Attendance Policy: All students are expected to attend classes on a regular basis. The Department of Chemistry adheres to the attendance policy set by the University as stated in the most current Undergraduate Catalog. The attendance record is taken from the daily sign-in sheet. A student who is late by more than 5 minutes or fails to sign the sign-in sheet will be counted as missing a class. Excessive absence is defined as missing more than 10% of the class without excusable reasons. Excessive absence will be reported to the Dean of the College and the Dean of Students. In addition, according to the TAMU-Commerce Procedure 13.99.99.R0.001, if a student has excessive

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absences, the instructor may drop the student from the course. The instructor will only excuse an absence if the student provides, with appropriate document, an excusable reason allowed by the TAMU-Commerce Procedure **13.99.99.R0.001**. Good class attendance will be necessary in order to pass this course.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure</u> 13.99.99.R0.01.

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

 $\underline{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf}$

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

Undergraduate Student Academic Dishonesty Form

 $\frac{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf}$

Graduate Student Academic Dishonesty Form

 $\underline{http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyForm}\\ \underline{old.pdf}$

 $\underline{http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyForm} \\ \underline{old.pdf}$

Students with Disabilities— ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

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Office of Student Disability Resources and Services

Texas A&M University-Commerce Velma K. Waters Library Room 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOf EmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

Al Use Policy

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

CHEM 1311 5 Summer I 2023 Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors 'guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty 13.99.99.R0.10 Graduate Student Academic Dishonesty