



CHEM 1305: SURVEY OF GENERAL CHEMISTRY
Summer I 2024

Instructor: Dr. Bukuo Ni
Office: Science Building 303
Office Hours: Virtual office at D2L and by email.
Contact Information: Tel : (903) 886 - 5382; bukuo.ni@tamuc.edu

COURSE INFORMATION

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

Text/Manual and other required material:

Textbook: Introduction to General, Organic, and Biochemistry, 11th Edition, Brooks/Cole, Cengage Learning; ISBN: 9781285869759; by Bettelheim, Brown, Campbell, Farrell.

Course Description

(CHEM1305) Survey of General Chemistry: 3 credit hours (lecture only).

This course is designed for students majoring in Agricultural Science, Wildlife and Conservation science, the Environmental Sciences, Nursing and non-majors seeking an understanding of chemistry and its applications in human health, agriculture and the environment. Students are introduced to the scientific method, the basic structure of the atom, microscopic and macroscopic properties of the solutions, solids, liquids and gasses, basic nuclear chemistry and the utilization of basic mathematics manipulations to determine solution concentrations, reaction stoichiometry, etc. The course will prepare students for the survey of organic and biochemistry course.

Prerequisite: The student must have completed Lvl U Math Min Grade D or Lvl Math 1314 Min Grade D or Lvl U Math 175 Min Grade D or Lvl U Math 1324 Min Grade D or Lvl U Math 179 Min Grade D.

Student Learning Outcomes

- (1) Exam questions will be developed to evaluate a students critical thinking skills. The students in the course will be required to analyze, evaluate, or solve problems when given a set of circumstances or data.
- (2) Exam questions will be developed to evaluate a student's ability to understand and utilize mathematical functions and empirical principles and processes.
- (3) Student communication in the class will be clear, purposeful, and make appropriate use of evidence, data and technology as applicable. Students will be able to engage with peers in a way that demonstrates their understanding of relevant course theories and concepts.
- (4) At the completion of the course, students will understand the scientific method, the basic structure of the atom, microscopic and macroscopic properties of solutions, solids,

liquids and gases, basic nuclear chemistry and the utilization of basic mathematic manipulations to determine solution concentrations, reaction stoichiometry, etc.

Grading/Evaluation

The grade for this course will be derived as follows:

Three examinations: 20% each, 60% of total grade.

Homework and quizzes: 20% of total grade.

Final comprehensive exam: 20% of total grade.

Late work will not be accepted, and makeup quizzes or exams will not be given. NO make-up exams will be offered. If you miss a midterm for a reason beyond your control, you may request in writing to be excused from that exam providing you have valid written documentation supporting your reason.

The last drop date for the course, please check the university website:

<http://www.tamuc.edu/Admissions/registrar/academiccalendars/>. Grading will be based on a standard percentage scale: 100-87 = A; 86-78 = B; 77-68 = C; 67-58 = D; 57- below =F. Dishonest scholarship will earn an automatic zero (0) and initiate prosecution to the fullest extent. Incomplete grades may be given only if the student has a current average above 70% and is precluded from completion of the course by a documented illness or family crisis.

Communication: If the instructor needs to contact an individual student, it will be via the student's e-mail account. Students should check e-mail frequently, especially after absence. Email is the best, easiest and fastest way to communicate with me.

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 in CHEM 1305:

1. The lectures in this course will cover Chapters 1-8 of the assigned textbook. This material will be covered at the rate indicated by the Tentative Class Schedule. Be sure to read the textbook before 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 for exams.

Tentative Class Schedule

| Week | Date | Topics |
|------|---------|--|
| 1 | June 3 | Chapter 1. Matter, Energy and Measurement |
| | June 4 | Chapter 2. Atoms |
| | June 5 | Chapter 2. Atoms |
| | June 6 | Chapter 3. Chemical Bonds |
| 2 | June 10 | Exam 1: (Chapters 1-2) |
| | June 11 | Chapter 3. Chemical Bonds |
| | June 12 | Chapter 4. Chemical Reactions |
| | June 13 | Chapter 4. Chemical Reactions |
| 3 | June 17 | Exam 2: (Chapters 3-4) |
| | June 18 | Chapter 5. Gases, Liquids, and Solids |
| | June 19 | Chapter 5. Gases, Liquids, and Solids |
| | June 20 | Chapter 6. Solutions and Colloids |
| 4 | June 24 | Chapter 6. Solutions and Colloids |
| | June 25 | Chapter 7. Reaction Rates and Chemical Equilibrium |
| | June 26 | Chapter 7. Reaction Rates and Chemical Equilibrium |
| | June 27 | Chapter 8. Acids and Bases |
| 5 | July 1 | Exam 3: (Chapters 5-7) |
| | July 2 | Chapter 8. Acids and Bases |
| | July 3 | Final comprehensive exam (Chapters 1-8) |
| | | |

Recommended problems and examples for your practice back of each chapter

| | |
|------------|---|
| Chapter 1: | 16, 17, 18, 25, 26, 27, 28, 29, 32, 36, 37, 38, 39, 43, 53, 55, 56, 58, 60, 74. |
| Chapter 2: | 10, 15, 16, 18, 22, 24, 25, 26, 28, 29, 30, 35, 46, 48, 51, 52, 53, 54, 64, 66. |
| Chapter 3: | 18, 21, 23, 28, 32, 34, 35, 38, 39, 42, 50, 52, 53, 75. |
| Chapter 4: | 18, 21, 22, 24, 29, 30, 31, 38, 39, 42, 43, 45, 46, 55, 56, 59, 70, 71. |
| Chapter 5: | 18, 20, 23, 32, 37, 38, 39, 46, 58, 62, 64, 96. |
| Chapter 6: | 17, 18, 24, 25, 28, 35, 37, 40, 44, 48, 51, 52, 59, 60, 67, 69, 75, 76. |
| Chapter 7: | 10, 16, 19, 25, 26, 27, 28, 30, 31, 37, 38. |
| Chapter 8: | 14, 16, 19, 20, 22, 26, 30, 33, 37, 56, 66. |

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 Virtual Classroom 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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

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](#)

<https://inside.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf>.

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 webpages below.

[Attendance,](#)

<https://inside.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

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 Students Academic Integrity Policy and Form

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Undergraduate Student Academic Dishonesty Form](#)

<https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf>

Graduate Students Academic Integrity Policy and Form

[Graduate Student Academic Dishonesty](#)

<https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf>

[Graduate Student Academic Dishonesty Form](#)

<http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.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:

Office of Student Disability Services
Velma K. Waters Library- Room 162

Phone (903) 886-5930

Fax (903) 468-8148

Email: StudentDisabilityServices@tamuc.edu

Website: <https://www.tamuc.edu/student-disability-services/>

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/34SafetyOfEmployeesAndStudents/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

Counseling Center Services

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