

CHEM 1307 Survey of Organic and Biochemistry

Faculty contact:

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Office Hours: Virtual office at D2L or by appointment

Course Information

Lectures (Web Based Class): Meets 7/8/2024 through 8/8/2024

Required Textbook: Introduction to General, Organic, and Biochemistry, 11th Edition, Brooks/Cole, Cengage Learning; ISBN-13: 978-1-285-86975-9; by Bettelheim, Brown, Campbell, Farrell, Torres.

Course description, objectives, and learning outcomes (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. The course examines the principles, nomenclature, reactions and methods of synthesis of organic compounds. Special attention is given to the application of organic chemistry to various biological processes. The course is designed to develop and improve the student's ability to think critically and solve problems. Thus, a letter grade earned in this class not only reflects the student's knowledge of basic organic chemistry, but also reflects the student's ability to solve scientific problems based on available information, and to become a better scientist.

Prerequisite:

Prerequisites: CHEM 1305, CHEM 1405, CHEM 1411, or CHEM 1412.

Grading/Evaluation

Your course grade will be based on exams and quizzes. Three partial exams are worth 60% of your final grade with 20% for each partial exam. The quiz will be 15% of your final grade. A course comprehensive standardized final exam is worth 25% of your final grade.

The grade for this course will be derived as follows:

Three examinations 60 % Quiz 15% Final Comprehensive Exam 25 %

<u>Late work will not be accepted, and makeup quizzes or exams will not be given.</u> 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 sees the 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.

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 1307:

- 1. The lectures in this course will cover Chapters 10-22 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.
- 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 | Reading Assignment |
|------|----------|--|--------------------|
| 1 | July 8 | Chapter 10. Organic Chemistry | 260-272 |
| | July 9 | Chapter 11. Alkanes | 273-297 |
| | July 10 | Chapters 11& 12. Alkanes, alkenes and | 298-321 |
| | | alkynes | |
| | July 11 | Chapter 12. alkenes and alkynes | 298-321 |
| 2 | July 15 | Chapter 13. Benzene and its derivatives | 322-337 |
| | July 16 | Exam 1: (Chapters 10-13) | |
| | July 17 | Chapter 14. Alcohols, ethers, and thiols | 338-357 |
| | July 18 | Chapters 14 & 15 Chirality: The handedness of | 358-375 |
| | | molecules | |
| 3 | July 22 | Chapter 15 Chirality: The handedness of | 358-375 |
| | | molecules | |
| | July 23 | Chapter 16. Amines | 376-388 |
| | July 24 | Exam 2: (Chapters 14-16) | |
| | July 25 | Chapter 17. Aldehydes and ketones | 389-403 |
| | July 29 | Chapters 17& 18. Carboxylic acid | 404-422 |
| 4 | July 30 | Chapter 18. Carboxylic acid | 404-422 |
| | July 31 | Chapter 19. Carboxylic anhydrides, esters, and | 423-439 |
| | | amides | |
| | August 1 | Exam 3: (Chapters 17-19) | |
| 5 | August 5 | Chapter 20. Carbohydrates | 440-465 |
| | August 6 | Chapter 21. Lipids. | 467-496 |
| | August 7 | Chapter 22. Proteins. | 497-532 |
| | August 8 | Final comprehensive exam (Chapters 10-22) | |

Recommended HW problems and examples

| Chapter 10: | 12, 15, 17, 24, 27, 29, 30, 32, 38, 44, 47. |
|-------------|---|
| Chapter 11: | 11, 14, 15, 21, 28, 29, 35, 36, 45, 48, 50, 51, 52, 55. |
| Chapter 12: | 13, 14, 19, 22, 24, 29, 40, 41, 45. |
| Chapter 13: | 2, 3, 4, 5, 10, 14, 15, 19, 21, 32. |
| Chapter 14: | 10, 11, 12, 16, 20, 23, 26, 33, 38, 48. |
| Chapter 15: | 8, 9, 13, 16, 22, 23, 31, 35. |
| Chapter 16: | 11, 13, 15, 18, 25, 30, 32, 47, 52, 54. |
| Chapter 17: | 13, 14, 17, 24, 28, 31, 36, 40, 49, 57, 64. |
| Chapter 18: | 6, 7, 17, 18, 25, 27, 29, 34, 41, 42, 44. |
| Chapter 19: | 4, 11, 13, 41, 42, 43, 44. |
| Chapter 20: | 15, 18, 20, 21, 23, 34, 44, 64. |
| Chapter 21: | 4, 10, 14, 43, 70, 79. |
| Chapter 22: | 9, 10, 27, 30, 42, 50, 52, 56, 69, 92. |

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 help-password.com/hep-passw

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

Course Specific 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

 $\frac{https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf}$

Undergraduate Student Academic Dishonesty Form

 $\frac{https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf$

Graduate Students Academic Integrity Policy and Form

Graduate Student Academic Dishonesty

 $\frac{https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf$

Graduate Student Academic Dishonesty Form

 $\underline{http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyF} or mold.pdf$

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 <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

 $\frac{http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34Safet}{yOfEmployeesAndStudents/34.06.02.R1.pdf}$

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