



EAST TEXAS A&M

— UNIVERSITY —

CHEM 314: General Biochemistry

Course Syllabus, Summer I 2026

INSTRUCTOR INFORMATION

Instructor: Ashley Gusukuma
Office Location: Caddo Mills High School, Room 206
Office Hours: Online by appointment
Office Phone: (903) 527-3164; (903) 527-3164 ext 6206
Office Fax: (903) 527-4772
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Preferred Form of Communication: email
Communication Response Time: < 48 weekday hours

COURSE INFORMATION

Principles of Biochemistry, 5th edition, Authors: Horton, Moran, et. al., ISBN:
978-0-321-70733-8

Course Description

This is a one-semester biochemistry course that serves as an introduction to the nomenclature and function of the major classes of molecules associated with living organisms. The subject matter is tailored for students interested in pharmacy, dentistry, medicine, and related health science disciplines that need a lecture course in biochemistry with no laboratory. The course topics will be presented along with examples where basic knowledge in the field of biochemistry is relevant for the practice of modern medicinal chemistry and pharmacy.

The syllabus/schedule are subject to change.

Course Definition

Structure and function of large and small biomolecules involved in metabolism and information transfer in living organisms. The course treats both chemical and biological processes and their mechanisms. For students majoring in health-related disciplines but not requiring an accompanying laboratory.

Credits: 3

Course Credits Prerequisites or Co-requisites: Prerequisites: BSC 101 Minimum Grade C or BSC 1406 (Minimum Grade C) and BSC 102 Minimum Grade C or BSC 1407 (Minimum Grade C) and CHEM 212 or CHEM 2323/2123 (Minimum Grade C).

Student Learning Outcomes

The main objectives of this course are to provide a basic foundation and understanding of the principles of modern biochemistry necessary for further work in the biochemical/biomedical areas. Unlike much earlier chemistry, the material is often conceptually complex and not yet amenable to straightforward mathematical interpretation. Accordingly, the students may find the material more heavily descriptive than in their earlier chemical studies. By the end of this course, the students will have a better understanding of the structure and function of the biological macromolecules in metabolism and biosynthesis. At the completion of this course students will be able to:

- Identify various biomolecules (amino acids, nucleotides, sugars, fatty acids).
- Understand complex biomolecule structure (proteins, nucleic acids, carbohydrates, lipids).
- Understand the concept of metabolic pathways relative to the synthesis of biomolecules.
- Understand the function of enzymes, their mechanisms and how their importance to the concept of metabolism.
- Comprehension of membrane structure and function.
- Understand key metabolic pathways such as glycolysis, gluconeogenesis and the citric acid cycle.
- Be able to relate the importance of biochemical concepts to other scientific disciplines as well as to its role in daily lives.

The syllabus/schedule are subject to change.

COURSE REQUIREMENTS

ATTENDANCE POLICY

All students are expected to attend online classes on a regular basis. According to the East TAMU Procedure A13.02, if a student has excessive 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 East TAMU Procedure A13.02.

Instructional Methods:

Online setting. Course structure will involve assessment-using exams at designated dates during the semester.

Student Responsibilities for Success in Course:

Students should review notes daily and become familiar with basic concepts of biochemistry as presented to them. Waiting until the day before the exam to study the material covered is not a successful approach. Students should also actually read and study the textbook chapters they are being tested over prior to reviewing the lecture material, notes or attempting the exams.

Tips for Success in the Course

1. Read the chapter before reviewing the lecture notes.
 - **Read the chapter we are covering when it is assigned.** This helps you in at least two ways: (1) it exposes you to the material before the lecture, making it easier for you to understand the lecture or supplemental material and thus get more out of it; and (2) it prepares you to complete the exams successfully.
2. Attend optional Q&A and tutorial sessions as offered.
3. Take good notes.
4. Ask questions
6. Work all of the in-text problems.
7. Work ALL of the chapters end problems.
8. Study consistently!!
9. Use supplemental material questions (online classroom, other textbooks, etc.)
10. Use flash cards.
11. Use a study group (3-5 people).
13. Take notes as you read the chapters
14. Summarize your lecture notes.
15. Complete all assignments, both in person and online.
16. Get a tutor.

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Exams

For students enrolled in CHEM 314, your final grade will be based on your performance in 3 out of 4 exams (25% each) and the final exam (25%). Your course grade will be based on 3 online exams (0.25 x exam grade) out of 4 representing 75% of your total course grade. The final comprehensive examination will represent 25% of your course grade (0.25 x final exam grade). The exams will contain a mix of objective and subjective questions (multiple-choice questions, true-false questions, long (explanation) questions, short (formulas and definitions) questions and graphical/diagrammatic questions. No make-up exams will be allowed since you will be allowed to drop one of the first 4 exams during the semester. Extra credit assignments will NOT be provided during this course. It is the students responsibility to monitor the university calendar for important dates including the last drop days to get a Q in the class.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or below

A = 90-100 points B = 80-89 points C = 70-79 points D = 60-69 points F = 59 points or below

Communication: If the instructor needs to contact an individual student, it will be via the student's email account. Students should check email frequently. Email is the best, easiest and fastest way to communicate with the professor of this course.

Minimal Technical Skills Needed Students must be able to use Microsoft office, PowerPoint, D2L, and Google Classroom.

Student Conduct Policy All the students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (this includes online classes). (See current Student Guidebook). If the student fails to comply with the code of conduct and is disrespectful, disruptive to the instructor or the students of the class, the instructor reserves the right to dismiss the student from the class on the first offense. A second offense may constitute dismissal from the course with a failing grade. A & M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related

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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 expression will be maintained.

Academic Honesty Agreement (READ THIS)

Since this class is online and it does not have a proctoring service for exams, maintaining academic integrity / honesty is a challenge. I have caught students cheating on my online exams multiple times so every time that I teach this course, it is reasonable to say that some students try to cheat their way through it. Those students were reported to the Dean of Students and each ended up withdrawing from or failing the course.

I want it to be VERY clear to you that I will be evaluating your graded material VERY closely to find evidence of cheating. Almost all of you are biology, animal science or chemistry majors. Your exam answers will be monitored for use of AI and compared to each other for similar answers among other things. There are not very many of you enrolled in the class, so it is not unreasonable for me to write unique exams for each student. Even though this is an online class, I KNOW that some of you know other students in the class...some of you are good friends. Many of you are pre-vet, pre-medical, pre-dental, pre-pharmacy majors. The pressure to maintain a high GPA is real. You do NOT want to give in to the urge to cheat to maintain a good grade in this class.

If I catch you cheating, this is what I am going to do:

1. I am going to give you a zero on the assignment with no opportunity to redo the assignment (which probably means you fail the course).
2. I am going to file an academic dishonesty complaint with the Dean of Students. You would have an opportunity to challenge this. If you lose the challenge, the complaint goes into your permanent record with the University. After two such documented complaints, you can be kicked out of East Texas A&M.

My department head in Chemistry, Dr. Jang, has been notified so that he knows you have been notified and so that he also is aware of my policy for exams in this class. I take my role as an educator seriously. I teach, you learn. Cheating is not learning. I learn from you; you learn from me. At the end of the course, we are all more educated individuals.

Since the exams are not proctored, to give everyone the same resources as possible I am ok with you:

1. Using handheld models on the exams
2. Using your notes and textbooks for the exams
3. Using any material that I have provided to you through email or D2I for the exams.

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I do not encourage you to use the above resources on exams as it will just slow you down making it more difficult to complete the exams in a timely manner (the exams are timed). It is better to just know the material off the top of your head so that you can work faster and more confidently.

I am NOT OK with you using the following on the exams (below are examples of cheating):

1. Searching the internet for an answer during an exam.
2. Using any form of AI to search or generate answers.
3. Talking with other individuals (text, messenger, apps, speaking to, working together, etc) on the exams.

Answers need to come from your own memory, your own notes or your own textbook, nothing else. If you utilize another individual or the internet during an exam, you have cheated. If I feel that I can prove that you cheated, I will proceed with the steps outlined above (assign a grade of zero and will report the academic dishonesty).

So, your best strategy for the exams is to learn the material and then use you and yourself and no one else to complete the exams. **If you do not feel that you can pass the class and earn the grade that you want without cheating, I highly recommend that you drop the class now and take the class in person where the temptation and possibility to cheat is much less.**

I know it is a bit harder learning online than in person. The lecture material that I have posted online covers the same content that I would cover face-to-face. Further, I am available by appointment to meet online via Zoom to help you with the material live.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University 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

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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 ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

The best way to communicate with the instructor is via e-mail:
agusukuma@leomail.tamuc.edu.

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>

COURSE AND UNIVERSITY PROCEDURE/POLICIES COURSE SPECIFIC PROCEDURES

Syllabus Change Policy The syllabus is a guide. Circumstances and events 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 CHEM 314 Course Syllabus Spring 2026 5 interact with students in an online forum: <https://www.britannica.com/topic/netiquette>

ETAMU Attendance For more information about the attendance policy please visit the Attendance webpage and Procedures 13.99.99.R0.01
<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

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Academic Integrity Students at East Texas A&M University 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

<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 Form

<https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10.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 Resources and Services

East Texas A&M University

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: Student Disability Services <https://www.etamu.edu/student-disability-services/>

Please advise the instructor of any special problems or needs at the beginning of the semester.

Nondiscrimination Notice

CHEM 314 Course Syllabus Spring 2026 6 East Texas A&M University 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.

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Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University 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 East Texas A&M University 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:

<https://inside.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 East Texas A&M University campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

East Texas A&M University Supports Students' Mental Health

The Counseling Center at East Texas A&M University, 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

Mental Health and Well-Being The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



<http://telusproduction.com/app/5108.html>

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AI use policy [Draft 2, May 25, 2023]

East Texas A&M University 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). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course.

Note: This instructor has elected to DISALLOW ENTIRELY THE USE OF SUCH SOFTWARE 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. Undergraduate Academic Dishonesty 13.99.99.R0.03 Graduate Student Academic Dishonesty Form

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COURSE CALENDAR FOR CHEM 314

All dates and assignments are tentative and subject to change.

Suggested Date to Cover	Reading Assignment/Exams
June 1	Chapter 1
June 2	Chapter 2
June 3	Chapter 3
June 4	Chapter 4
June 5	Test Review
June 6th or 7th	Exam 1
June 8th	Chapter 5
June 9th	Chapter 6
June 10th	Chapter 7
June 12th	Test Review
June 13th or 14th	Exam 2
June 15th	Chapter 8
June 16th	Chapter 9
June 17th	Chapter 19
June 18th	Chapter 10
June 19th	Test Review
June 20th or 21st	Exam 3
June 22nd	Chapter 11
June 23rd	Chapter 12
June 24th	Chapter 13
June 25th	Chapter 14
June 26th	Test Review
June 27th or 28th	Exam 4
Week of June 29th	Final Exam Review and Cumulative Final Exam

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