

THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
BIOINFORMATICS PROGRAM

Course #: BINF 5341 (CRN 29193)
Course Title: Analysis and Modeling of Biological Structures
Credit Hours: 3
Term: Spring 2021
Course Meetings & Location: 100% Online; Synchronous meeting time: TR 10:30 – 11:50 AM
***Please check Blackboard for updates
Prerequisites: CHEM 2324+2124 or Instructor Approval
Co-requisite: BINF 5111
Instructor: Dr. Ming-Ying Leung and Dr. Jonathon Mohl
Office Location: Bell Hall 225 (Dr. Leung) and 134 (Dr. Mohl)
Contact Info: Phone # (915)747-6836
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Office Hours: math.utep.edu/Faculty/mleung/officehours
Textbook(s), Materials: Required: None required. Most information can be obtained from on-line resources or research papers. However, the book suggested below would be a useful reference.
Suggested: Lehninger Principles of Biochemistry, Nelson and Cox, W. H. Freeman Company, New York.
GPCRs: Structure, Function, and Drug Discovery, Jastrzebska and Park, Academic Press.
Course Objectives (Learning Outcomes): Students will be able to understand structural biology literature and apply the principles, concepts, and software tools learned in class to analyze and model biological structures computationally.

Course Activities/Assignments: Students will be expected to attend lecture, read the course materials, and solve problems in the assignments. Study groups to discuss the problems and brainstorm approaches to problem solving are encouraged, however, the written assignments and computer programs turned in for grading must be your own work and reflect your individual effort.

Technology Requirements: Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.

You will need to have access to a computer/laptop, scanner, a webcam, and a microphone. You will need to download or update the following software: Microsoft Office, Adobe Acrobat Reader, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and able to access all parts of the course.

If you do not have a word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about Microsoft Office 365 and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP Help Desk as they are trained specifically in assisting with technological needs of students. Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!

Assessment of Course Objectives: Homework, exam, and project

Course Schedule: **February 3** – Class Census Day. If a student drops before the census date, neither the course nor a grade will appear on the student's academic record. This is the last day to drop without a W.
April 1 – Course Drop Deadline

Grading Policy: Assessment of the course is based on homeworks, exam, and project.

Make-up Policy: No late homeworks are allowed. Make-up examinations will not be given.

Course Communication: **Email:** UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 24-48 hours of receipt. When e-mailing me, be sure to email from your UTEP student account and please put the course number in the subject line. In the body of your e-mail, clearly state your question. At the end of your e-mail, be sure to put your first and last name, and your university identification number. **Discussion Board:** If you have a question that you believe other students may also have, please post it in the Help Board of the discussion boards inside of Blackboard. Please respond to other students' questions if you have a helpful response. **Announcements:** Check the Blackboard announcements frequently for any updates, deadlines, or other important messages.

Attendance Policy: Class attendance is required and noted at the beginning of class; more than two unexcused absences will result in an instructor-initiated drop or final grade reduction. .

Academic Integrity Policy: Violations of academic integrity, including unauthorized submission of work performed by others, will be pursued vigorously to result in the most severe sanctions. Please refer to UTEP's policy cited in sa.utep.edu/osccr/academic-integrity.

Civility Statement: No text messaging in class. Please silence cell phones before coming to class. Students are expected to actively participate in class discussions and group activities. Group work that is not completed in class is to be finished as homework, so use the class time wisely by staying focused on the class topic and avoiding chit-chat.

Disability Statement: If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact the Center for Accommodations and Support Services (CASS) at 747-5148, email at cass@utep.edu, or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any CASS accommodation letters and instructions.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact as soon as possible.