PRAIRIE VIEW A&M UNIVERSITY

SYLLABUS

CHEM 4033 Biochemistry
Summer 2018

Instructor: Yingchun Li
Section # and CRN: P01 32309
Office Location: New Science Building Room213
Office Phone: 936-261-3109
Email Address: ycli@pvamu.edu
Office Hours: MTWR 9:30- 10:30 or by appointments
Mode of Instruction: Face to Face

Course Location: New Science building room A104
Class Days & Times: MTWR 10:30-12:50
Catalog Description: A study of the chemistry of biological molecules: proteins, lipids, carbohydrates and nucleic acids. Enzyme catalysis, Bioenergetics, Metabolism of carbohydrates, fats and proteins. Interrelationship of the metabolic pathways. Prerequisites: CHEM 2033 and CHEM 2043 or permission from instructor.

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Co-requisites: None

Required Texts: Lehninger Principles of Biochemistry by David L. Nelson & Michael M. Cox
6th edition, older editions are acceptable.

Recommended Texts: PVAMU Library: phone: (936) 261-1500; web: http://www.tamu.edu/pvamu/library/

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	Know the general 'bio' basis, organism and classifications, basic cell structure components	ABEF	
2	Know the names, structures and properties of monomeric building blocks and chemical bond linkage between them for biomolecules including proteins, carbohydrate and Nucleic acid	ABEF	
3	Use hemoglobin, antibody and muscle proteins to illustrate structure, folding and function of proteins	ABEF	
4	Understand mechanisms and kinetics of enzymes	ABEF	
5	Know the structures and major functions of carbohydrates	ABEF	
6	Know the structure and major functions of Nucleic acid and technologies based on it.	ABEF	
7	Knew the structures, properties and functions of the diverse lipids	ABEF	
8	Know the biological membranes, structure and transport	ABEF	
9	Understand biosignaling process	ABEF	

Major Course Requirements

Method of Determining Final Course Grade

Course Grade Requirement	Value	Total
1) homework	200	
2) section exams (best 4 of 5)	100 x4	
3) Final (Comprehensive)	200	
Total:	**800**	

Grading Criteria and Conversion:
A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F < 60%

Detailed Description of Major Assignments:

Assignment Title	**Descript**
Homework online	The online homework is graded by computers and an average percentage will be given after the final closing date. Students are required to complete homework before the due time. Failure to do so lead to deduction of points. Extension of due time of homework is only available to students with an appropriate excuse
Section exams (1.2.3.4)	5 section exams will be given, each gives 100 pointts. One of the lowest grade will be discarded. Therefore 400 points are assigned to the section exams
Attendance	Attendance will be recorded at the end or the beginning of each class.
Final exam	comprehensive

Instructor Policies

1. Retard to class may be recorded as absence to class.
2. Makeup for a section-exam and the final exam with an acceptable excuse (letters or notes from a doctor or an authorized administrator with a phone number for confirmation).
3. Online Homework pass due date will not be counted.
4. No cell phone, laptop, tablet allowed during lecture.

Summer Semester Calendar

Day1:	Introduction and foundation of chemistry
Chapter (s):	1
Day 2:	HW, Chemistry of water, acids, bases, salts and buffers
Chapter (s):	2
Assignment (s):	HW
Day 3:	Amino acids, peptides and proteins
Chapter (s):	3
Day 4:	3-D structure of proteins HW
Day 5	**EXMA 1,** 4 Protein functions
Day 6	
Chapter (s):	Enzymes
Assignment (s):	HW
Day 7	Protein functions
Chapter (s):	5
Assignment (s):	HW
Day 8:	Enzyme
Chapter (s):	6
Assignment (s):	Enzye (kinetics) HW
Day9	**EXAM 2,** Carbohydrate and Glycobiology
Day 10:	
Chapter (s):	7
Assignment (s):	HW
Day 11	Nucleotides and nucleic acids
Chapter (s):	8
Assignment (s):	HW.
Day 12	DNA based technology
Chapter (s):	9
Assignment (s):	HW,
Day 13:	**EXAM 3,** Lipid
Chapter (s):	10
Assignment (s):	HW,
Day 14:	Biological membranes and transport
Chapter (s):	11
Assignment (s):	HW
Day15:	Biosignaling
Chapter (s):	12
Assignment (s):	HW
Day 16:	Review
Day 17	Exam 4, Reviw
D18	**Review**
Day 19	Holyday
Day 20	Final exam
Day 21	Final Grade

Student Support and Success

John B. Coleman Library
The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support
The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS
The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library

Writing Center
The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

University Rules and Procedures

Disability statement (See Student Handbook):
Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.

2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.

3. Fabrication: use of invented information or falsified research.

4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)
The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):
Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy
Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process
Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

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TECHNICAL CONSIDERATIONS

***Minimum* Recommended Hardware and Software:**

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

***Netiquette* (online etiquette):**

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

***Technical Support*:**

Students should go to https://mypassword.pvamu.edu/ if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

***Communication Expectations and Standards*:**

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplish by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.