BIOL 3310 Cellular and Molecular Biology
Fall 2010 Section 001 MWF 9:00A – 9:50A, N322

Instructor	My Lo Thao, Ph.D.
Office/ Telephone	N270 / (209) 667-3649
Office hours	M 10:00A-11:30P, T 9:00A-10:30A or by appointment
E-mail	mlthao@biology.csustan.edu
Webpage	http://arnica.csustan.edu/thao/

Course description: Introductory analysis of the structure and function of the major components of the cell with emphasis on the molecular mechanisms involved in membrane function, signal transduction, intracellular compartments and transport, cell division and apoptosis.

***Course objectives*:** For students to gain factual knowledge of the structure and function of the major components of the cell and understand the basic principles of molecular biology as it applies to experimental evidence that supports the current knowledge of the cell.

COURSE REQUIREMENTS

Prerequisites: BOTY 1050, ZOOL 1050 or BIOL 1150, or equivalent
CHEM 1110 or equivalent

Required Text: Essential Cell Biology, 3rd Edition, Alberts *et al*.

ADD/DROP Policies:
September 20th is the last day to add/drop the course. The add/drop policies for BIOL 3310 are the same as the university add/drop policies.

Grading Policies:
1. **Academic Dishonesty and Misconduct:** There is zero tolerance for cheating**.** Cheating in any capacity in this class will result in penalties ranging from a minimum of a zero on the assignment or exam to a maximum of expulsion from California State University, Stanislaus as indicated by the official University Policy regarding dishonesty and misconduct. Exams, reports, and/or other assignments are indicators of individual performance. Copying off another student's exam, plagiarized reports, or other assignments constitutes cheating. If your phone rings during the exam, five (5) points will be deducted from your score. Taking out a cell phone during an exam is considered cheating, your exam will be confiscated, and you will receive a grade of F.
2. **Class attendance is required**; missing more than 4 classes may result in being dropped from the course. You are responsible for any information or assignments you missed in your absence. I highly recommend reading the assigned chapters before coming to class.
3. **Make-up exams given only under extenuating circumstances and only with documentation**.
   a. Make-up exams will be different and will consist only of short answers and essay questions. Failure to appear at exam time without 24 hours prior notice to instructor with an appropriate excuse, or an appropriately documented emergency, will result in zero points for that exam.
   b. You will not be allowed to leave the room before you finish and turn in your exam.

c. Questions that may appear on exams include multiple choice, matching, short answer, discussion, problem-solving and case study interpretation. You will need Scantron form # 882-E for the exams. Note that:
   i. only answers on the scantron will be graded, so transfer answers carefully
   ii. take care to erase well those answers you do not want marked
   iii. illegible answers in written portion will not be graded.

4. **Total points for course = 540**

4 exams (75 pts each)	300 pts
Case study	40 pts
Comprehensive final exam	200 pts

Additional assignments may also be made throughout the term. The instructor reserves the right to give unannounced quizzes if it becomes apparent that students are not keeping up with the material, there are an unacceptable number of absences and/or if students show up late for class.

Grading will be based on a percent scale:

93-100 = A, 90-92 = A-, 87-89 = B+, 83-86 = B, 80-82 = B-, 77-79 = C+, 73-76 = C, 70-72 = C-, 67-69 = D+, 60-66 = D, < 60 = F

- **The instructor reserves the right to reduce your grade due to excessive absences and/or tardiness.**
- **Grades/scores will not be sent to students via email or telephone.**

***Absolutely no late assignments will be accepted.**

5. **Lecture notes**, objectives, and/or Ppt lectures are in a private web. These materials **are copyrighted** and are only for the personal use of students enrolled in the course**. Do not** give the username/password to anyone not in the class. If you do so **no more** material will be provided.

The username is _____ the password is _____

Tentative Lecture Schedule: *Open to Revisions*

Date		Chapter	Subject
Aug	**23**		Introduction to course
	25	1	Introduction to cells
	27		Introduction to cells (cont'd)
	30	2	Chemical components of cells
Sept	**1**	3	Energy, catalysis, and biosynthesis
	3	4	Protein structure and function
	6		Labor day – no class!
	8		Protein structure and function (cont'd)
	10	5	DNA and chromosomes
	13	6	DNA replication, repair and recombination
	15		DNA replication, repair and recombination (cont'd)

	17		***Exam 1 Chapters 1-5 (75 pts)***
	20	7	From DNA to protein; **Census day**
	22		From DNA to protein (cont'd)
	24	8	Control of gene expression
	27		Control of gene expression (cont'd)
	29	9	How genes and genomes evolve
Oct	**1**		How genes and genomes evolve (cont'd)
	4	10	Analyzing Genes and Genomes
	6	11	Membrane Structure
	8		Membrane Structure (cont'd)
	11		***Exam 2 Chapters 5-10 (75 pts)***
	13		No class!
	15	12	Membrane Transport
	18		Membrane Transport (cont'd)
	20	13	How cells obtain energy from food
	22		How cells obtain energy from food (cont'd)
	25	14	Energy generation in mitochondria & chloroplasts
	27		Energy generation in mitochondria & chloroplasts
	29		Energy generation in mitochondria & chloroplasts
Nov	**1**		***Exam 3 Chapters 10-14 (75 pts)***
	3	15	Intracellular compartments and transport
	5		Intracellular compartments and transport (cont'd)
	8		Intracellular compartments and transport (cont'd)
	10	16	Cell communication
	12		Cell communication (cont'd)
	15	17	Cytoskeleton
	17		Cytoskeleton (cont'd)
	19	18	The cell division cycle
	22		The cell division cycle (cont'd)
	24		The cell division cycle (cont'd)
	26		Thanksgiving holiday!
	29		***Exam 3 Chapters 15-18 (75 pts)***
Dec	**1**	19	Sex and genetics
	3		Sex and genetics (cont'd)
	6	20	Cellular communities: tissues, stem cells, and cancer
	8		Catch up!
	10		**Reading day**
	15		***Final Exam 8:30A – 10:30A (200 pts)***