

Biology 3310 Cell and Molecular Biology

Spring 2015; section 001

Instructor: Brian Sardella, Ph.D.

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Office: N270

Office Hours: TR 11:00-12:00, or by apt.

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Meeting Times: TR 9:30-10:45; C117

Prerequisites: BIOL 1050, BIOL 1150, CHEM 1100, and CHEM 1110, or their equivalents.

Required Materials:

- Becker's World of the Cell, 8th Ed. By Jeff Hardin et al.
- Access to The Cell Place (thecellplace.com); free if you buy textbook new, otherwise you will need to purchase it separately online.

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 Learning Outcomes: Students should understand the structure, function, and basic principles of cell and molecular biology, as well as become familiar with experimental evidence that supports the current knowledge of the cell.

Attendance: Students are expected to attend all lectures and lab sessions. Please arrive in a timely manner. Poor attendance is highly correlated with a less than optimal final grade!

Exams: There will be four exams worth 100 points each, Exams will reflect all topics covered in lecture. There will be no make-up exams; Failure to appear at exam time without 24 hours prior notice to the instructor with an appropriate excuse, or an appropriately documented emergency, will result in zero points for that exam.

TheCellPlace.com

For each chapter, there is a set of review questions on the web site <http://www.TheCellPlace.com> (course ID sardella85463). Your access code to the cell place should be within your textbook. All assignments will be due the day of the exam that covers their material (ie; Ch. 1-6 assignments are due Feb 19). You can complete these anytime up to the due date, but no points will be awarded for assignments that are not done on time. Your final Cell Place grade will be based on the percentage of points you have earned out of the total.

Blackboard: Course materials will be available using blackboard (2015-SP-BIOL3310-001: Cellular and Molecular Biology).

Evaluation:

The Cell Place (homework)	100
Exams (4)	400
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Total Cumulative Points:	500

Grading: A percentage of total points will be calculated, and the following scale used:

A: 100-93; **A-:** 92-89; **B+:** 88-86; **B:** 85-83; **B-:** 82-79; **C+:** 78-76;

C: 75-73; **C-:** 72-69; **D+:** 68-66; **D:** 65-60 **F:** 59-0

- The CR/NC grading option is not approved for this course; only letter grades can be earned.

Course Drop and Withdrawal Policy

The policies for this course are the same as the university policies: "Adding or dropping courses after the Enrollment Census Date will not be allowed. After the Enrollment Census Date, students are responsible for completion of the course(s) in which they are enrolled." Withdrawal from courses after the Enrollment Census Date may be allowed "for documented extreme circumstances beyond the student's control". Illness and similar catastrophes may qualify as extreme circumstances; academic difficulties do not. Withdrawal from the course must be approved by the instructor, the chair of the Department of Biological Sciences, and the dean of the College of Science before being submitted to Student Affairs for final approval.

A grade of "incomplete" will only be considered when a serious and compelling reason is given. An Incomplete signifies (1) that a portion of required coursework has not been completed and evaluated in the prescribed time period due to unforeseen but fully justified reasons beyond the student's control, and (2) that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the attention of the instructor and to determine from the instructor the remaining course requirements which must be satisfied to remove the Incomplete.

Academic Dishonesty: There will be a zero tolerance policy for academic dishonesty, this includes, but is not limited to, cheating, plagiarism, and use of course materials in an inappropriate manner such as posting online. Violating this policy will result in a failing grade for the course and referral to the Student Judicial Affairs Office. See University code of conduct for more info: <http://www.csustan.edu/judicial-affairs/student-responsibilities>

Tentative Schedule

<u>Week</u>	<u>Week of</u>	<u>Lecture Topic</u>	<u>Reading (Hardin et. al)</u>
1	Jan 26	Introduction/cell theory; Cell chemistry	Ch. 1 Ch. 2
2	Feb 2	Macromolecules; Cells and Organelles	Ch. 3 Ch. 4
3	Feb 9	Bioenergetics; Enzyme functions	Ch. 5 Ch. 6
4	Feb 16	EXAM I (R 2/19)	CellPlace Due
5	Feb 23	Cell Membranes	Ch. 7
6	Mar 2	Membrane Transport; Glycolysis and Fermentation	Ch. 8 Ch. 9
7	Mar 9	Aerobic Respiration; Photosynthesis	Ch. 10 Ch. 11
8	Mar 16	EXAM II (R 3/19)	CellPlace Due
9	Mar 23	Peroxisomes	Ch. 12
10	Mar 30	<i>Caesar Chavez Day 3/31</i> Signal Transduction	Ch. 13 Ch. 14
11	Apr 6	<i>SPRING BREAK</i>	
12	Apr 13	The Cytoskeleton; Movement and contractility	Ch. 15 Ch. 16
13	Apr 20	Cell Adhesions EXAM III (R 4/23)	Ch. 17 CellPlace Due
14	Apr 27	DNA and Chromosomes; Cell Cycle and Mitosis	Ch. 18 Ch. 19
15	May 4	Gene Expression: Transcription and Translation	Ch. 21 Ch. 22
16	May 11	Sexual Reproduction and Meiosis	Ch. 23
Exam IV During Finals Week CellPlace Due			

Check Course Bb Page for any updates to the schedule!

