



**BIOL 1100, 5 Units**  
**Principles of Biology I**  
**Fall 2019**  
**Department of Natural and Social Sciences/Biological Sciences**

**Instructor:** Valerie Wong, Ph.D.

**Email:** vwong19@calstatela.edu (All email must be from your **CSULA account** or through **Canvas**)

**Office Hours:** Tues./Thurs. 9:15 – 10:15 AM, and by appointment in KH A2036

**Graduate Assistant:** TBA

**Lecture Days/Time:** Tues/Thurs 8:00AM – 9:10 AM

**Lecture Location:** ASCB 132

**Lab/Recitation sections (Meet in ASCB 344):**

Instructor	Lecture Section	Lab Section	Day/Time	Office Hours	Location	Email
Amelia Russo Neustadt	93583-25	93584/5 26/27	M 10-1:30pm	Th. 11am-noon	LKH 217	ARusson@exchange.calstatela.edu
Mario Mata	93586-28	93587/8 29/30	M. 2-5:30pm	W/F 12-1pm	KH D3087	Mmata23@calstatela.edu
Elizabeth Taylor	95232-37	95233/4 38/39	Tu 10-1:30pm	W 11:30am-1:30pm	TBA	TBA
Elizabeth Taylor	93893-34	93894/5 35/36	W 2-5:30pm	See above	TBA	TBA
Maral Keushkerian	95235-40	95236/7 41/42	Tu 2-5:30pm	M/W 2-3pm	ASCB 362	mkeushk2@calstatela.edu
Elizabeth Taylor	95238-43	95239/40 44/45	Th 10 -1:30pm	See above	TBA	TBA
Maral Keushkerian	95602-46	95602/3 47/48	Th 2-5:30pm	M/W 2-3pm	ASCB 362	mkeushk2@calstatela.edu

**Course Description:** The flow of energy and information through biological systems from micro- to macro-scales. Cellular structure and function across the domains of life, metabolism, Mendelian and population genetics. Lecture 2 hrs, laboratory 3 hrs, recitation 1 hr. *Prerequisite: Calculus ready*

**Course Objectives:**

Upon successful completion of this course, students will be able to:

- 1) Describe the structural components of biological molecules which govern their individual functions.
- 2) Describe the major features of prokaryotic and eukaryotic cells which make them the smallest units of life.
- 3) Describe energy flow at the cellular level.
- 4) Describe how the individual components of the central dogma of molecular biology collaborate to both pass on genetic information and produce functional cells.

**Course and CSULA Policies**

- **ACADEMIC HONESTY:** CSULA students are subject to disciplinary action for several types of academic and related personal misconduct, including but not limited to plagiarism, multiple submission, misrepresentation, and cheating. A single violation may lead to a failing grade. The CSULA Academic Honesty policies are found here: (<http://ecatalog.calstatela.edu/content.php?catoid=22&navoid=2123>) Student work is subject to evaluation by Turnitin (<http://www.calstatela.edu/cetl/edtech/student-faq>), an automated system that compares each assignment with web sites and a database of prior student papers that grows with each new submission. Assignments (including but not limited to lab reports, quizzes, and exams) with content that is NOT original (for instance, from the internet, books, or other people) will not be given credit.
- **Email** – The best way to contact me is via Canvas messaging or in office hours. **All direct emails pertaining to the course must come from your CSULA email account.** E-mail correspondence with the professor and lab instructors must be professional. You can expect a response from me within 1-2 business days.

- **Enrollment:** Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. Students should be aware of the current deadlines and penalties for adding and dropping classes: <https://get.calstatela.edu/Registrar.htm>.
- **Credit by Exam**—Credit by exam is possible for this course IF there is room in the lecture hall AND with confirmation of earning a B+ (87%) or higher in BIOL1100 lab during a previous semester. Please speak with the instructor on the first day of class for more information.
- **Incomplete Grade Policy:** Incomplete grades can only be assigned if 1. The majority of the coursework has been completed (essentially all work except the final exam), AND 2. The student is passing both lab and lecture with a grade of C or better. An Incomplete Grade Form must be submitted.
- **Americans with Disabilities Act (ADA) Compliance:** Reasonable accommodation will be provided by request to any student who is registered with the Office of Students with Disabilities (OSD); <http://web.calstatela.edu/univ/osd/atlc.php>.
- **Electronics Policy:** Use of electronic devices in class for *any purpose* other than assigned class work is grounds for removal. The device may be held until the end of class, and you may be asked to leave the room in order to maintain a learning environment for the other students.
- **Recordings:** If you would like to record lecture in part or entirely, *come see me to request permission*.

### Required Course Materials

**Textbook:** Connect Biology (Raven) 12<sup>th</sup> edition. We will go over the use of this online book and support system in class.

**Lab Manual:** Biology 1100 Lab Manual. Lanning et. al. (2019). This lab manual will be provided to you *free* on Canvas. You need to bring your lab manual to *every lab session*.

**Lab Coat:** All students are required to wear a lab coat during each lab period. **Students without lab coats may not participate in the lab exercise.**

**Lab notebook:** All students must have a lab notebook with *bound pages* (not spiral bound and no tear-out pages). Some lightly used notebooks may be available in lab on a first come first served basis for you to use.

**Technology Requirements:** You will use Canvas (<https://calstatela.instructure.com>) to receive announcements, access course materials, track grades, and upload documents.

- You can view your grades using the *GRADES* button in the course navigation links.
- Required course materials (e.g. - additional readings, multimedia, and modules) will be accessible via Canvas.
- You will need an up-to-date browser (<http://www.calstatela.edu/its/helpdesk/studentresources>) with the ability to play media in a variety of formats (YouTube, Flash, QuickTime, etc.) and Adobe Acrobat Reader to read PDFs.

**Adaptability:** All portions of this syllabus are subject to change at the instructor's discretion.

### Assessments

**Attendance:** Attendance is *necessary but not sufficient* to succeed in this course. Not coming to class gets reflected in every other part of your grade. Chronic *tardiness* disrupts the class and may result in academic underperformance. Students are responsible for all material presented in class, including announcements about changes in course procedures. Students are responsible for acquiring missed material, and not all work may be made up.

- Download and install the **Arkaive app** on your phone: <https://arkaive.com>; More information about attendance will be discussed in class and on Canvas.
- **Excused absences:** If you must miss class, it is your responsibility to notify your instructor as soon as possible, preferably before class. Excused absences include, but are not limited to: death or serious health issue of a close relation, religious reason, jury duty, university activity (e.g. – research conference, required field trip, artistic or athletic event). Your instructor must be notified about an **anticipated absence** (religious reason, government obligation such as jury duty, University activity) at least one week in advance. For an unanticipated absence, you must provide documentation (e.g. – doctor's note). **Notice or documentation must be made in writing from Canvas or your CSULA e-mail.**

**Studying:** A fair calculation for the time required for this class is *at least* 2 hours of independent study for each class hour.

**Assignments:** Assignments may be online homework or in class. In-class assignments cannot be made up, and *attendance is required for credit*. Homework *must be submitted on time* for credit. Lowest 2 assignment grades will be dropped.

**Quizzes:** **Due by midnight** before lecture, online. Quizzes will be based on lecture material since the last quiz. No makeups will be given. Lowest quiz grade will be dropped.

**Exams:** Format may include multiple choice, short answer, and/or essay questions.

- The final exam is *cumulative*. It covers material for the entire course, including class discussions, lecture slides, assignments, and course reading.
- **No makeups.** With an excused absence, the total exam value will scale up to compensate for missed points.
- If evidence of emergency is provided for a missed final, an Incomplete will be given

**Extra credit:** There will be NO unplanned extra credit.

**Study guides:** A study guide is a tool like an outline that can be used as a reference for learning course content. It is my philosophy that in this course, you are developing skills rather than just figuring out how to take a particular type of test. So our focus is to help you put together the strategies that are best suited to your study style rather than handing out lists of topics that are already available through other course materials.

**Curves:** I do not curve. I may adjust the final grade scale at the end of the semester.

You can view your grades using the *GRADES* button in the course navigation links. If you have a question about your lab grade, *consult your lab instructor first*. If the issue cannot be resolved, email Dr. Wong. Final grades will only be changed if a **mathematical** error is discovered. **To maintain fairness, other factors such as time to graduation, major, or desire for a higher score cannot be considered.**

#### Grading:

Your grade will be based on the following:

Component	Percentage
Assignments (Homework and in class)	15%
Quizzes	7.5%
Attendance	5%
Midterm Exams (3x100 pts)	30%
Final Exam	12.5%
Lab and Recitation	30%
<b>TOTAL</b>	<b>100%</b>

Scale for calculating grades:

Grade	Percentage Scale
A	93-100%
A-	90-92.9%
B+	87-89.9%
B	83-86.9%
B-	80-82.9%
C+	77-79.9%
C	73-76.9%
C-	70-72.9%
D+	67-69.9%
D	63-66.9%
D-	60-62.9%
F	<60%

\* Note: The number of points in each category are subject to change. Final grades will be calculated based on weighted categories. For instance, lab will be 30% of the overall grade, regardless of total points.

**BIOL 1100 Principles of Biology I Lecture Schedule, Fall 2019**

	Week	Date	Lecture	Reading	Quiz
Chemistry of Life and Cellular Structure	1	8/20	Introduction to life	Ch. 1	
		8/22	Introduction to life and scientific inquiry	Ch. 1	
	2	8/27	Chemistry of life: Atoms and Water	Ch. 2	1
		8/29	Biological molecules: Carbohydrates and Lipids	Ch. 3	
	3	9/3	Biological molecules: Proteins	Ch. 3	2
		9/5	Biological molecules: Nucleic Acid Structure	Ch. 3	
	4	9/10	Making of a cell: Membranes	Ch. 5	3
		9/12	Cellular Structure and Organization	Ch. 4	
	5	9/17	<b>MIDTERM EXAM I</b>		
		9/19	Energy and metabolism	Ch. 6	
Metabolism and Cellular Processes	6	9/24	Fermentation; Cellular respiration: Glycolysis	Ch. 7	
		9/26	TCA cycle & Oxidative Phosphorylation	Ch. 7	
	7	10/1	Photosynthesis and redox reactions	Ch. 8, 6	4
		10/3	Photosynthesis II	Ch. 8	
	8	10/8	The Cell Cycle	Ch. 10	5
		10/10	DNA Replication	Ch. 14	
	9	10/15	Mitosis	Ch. 10	6
		10/17	Meiosis	Ch. 11	
	10	10/22	<b>MIDTERM EXAM II</b>		
		10/24	Biotechnology I	Ch. 17	
The Central Dogma and Movement of Information	11	10/29	Mendelian Genetics	Ch. 12	
		10/31	Mendelian-ish Genetics	Ch. 12	
	12	11/5	Chromosomal Inheritance	Ch. 13	7
		11/7	The Central Dogma of Biology I	Ch. 15	
	13	11/12	The Central Dogma of Biology II	Ch. 15	8
		11/14	Control of Gene Expression	Ch. 16	
	14	11/19	<b>MIDTERM III</b>		
		11/21	Biotechnology II	Ch. 17	
	15	11/26	<b>THANKSGIVING; NO CLASS</b>		
		11/28			
16	12/3	Genomics	Ch. 18		
	12/5	Catch up and review			
<b>FINAL EXAM: Tuesday, December 10, 7-9:00AM</b>					

**\*NOTE: Additional readings and assignments to be done at home for each class may be assigned online.**

The schedule is subject to revision based on ongoing class needs.

Academic schedules: <http://www.calstatela.edu/semester-calendars-and-time-modules>

Important dates for add/drops: <http://www.calstatela.edu/registrar/university-scheduling-office>

Sep 3 (Tu) No record drop deadline (use *GET to drop*)

Oct 26 (Sa) Last day to drop all classes for a prorated refund

Nov 18 (M) Withdrawal (W) period ends

Dec 6 (F) Emergency Withdrawal period ends