

<b>Course Code &amp; No. – Section (CRN):</b>	BIOL 101/105 – Section 1 (80089)/Section 2 (80091)
<b>Course Title (Credits):</b>	Biology I (3 credits) and Lab (1 credit)
<b>Term &amp; Year:</b>	Fall / 2019
<b>Instructor:</b>	Dr. Suzanne Gollery
<b>Phone(s):</b>	Office: 775-881-7456 or Cell: 775-813-4215 (8 a.m. – 9 p.m.)
<b>Email:</b>	<a href="mailto:sgollery@sierranevada.edu">sgollery@sierranevada.edu</a>
<b>Office:</b>	TCES, room 223
<b>Office Hours:</b>	Mon 4:00-5:00 PM, Tues 2:00-3:00 PM, Fri 2:00-3:00 PM or by appointment
<b>Class Meeting Time:</b>	BIOL 101 MWF 9:00 – 10:15 AM BIOL 105 W 1:00 – 4:45 PM
<b>Locations:</b>	TCES 204 (Biology Lab) No food or drinks permitted; wear long pants and shoes that cover your feet
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	BIOL 101 and BIOL 105 are co-requisites

**Course Descriptions:**

**BIOL 101: Biology I:** A study of biological principles including life chemistry, cell structure, respiration, photosynthesis, Mendelian genetics, DNA structure and function, protein synthesis, and regulation of gene expression.

**BIOL 105: Biology Lab I** Laboratory and field exercises to accompany BIOL 101

**Required Texts and Materials:**

1. Mary Ann Clark, Jung Choi, and Matthew Douglas, *Biology, 2e*, Openstax, Houston, TX, 2018.  
eBook ISBN: 978-1-947172-52-4
  - Free eBook access and downloadable pdf available here: <https://openstax.org/details/books/biology-2e>
  - You may also “purchase” Openstax Biology 2e from the Kindle store for \$0. The Kindle app can be installed on any computer, tablet, or smartphone for reading the text.
  - Optional: Print ISBN: 978-1-947172-51-7 Available as a spiral-bound paperback at Amazon.com for \$41.60. You are NOT required to have a print copy of the text.
2. Online homework at Expert TA BIOL 101, available at <http://goeta.link/USY30NV-C9E8C0-1V1> I will NOT provide alternative assignments. The cost of enrolling in Expert TA for one semester is \$35. Because our text is open source and costs nothing, the total cost for text and online course materials is \$35, an extremely low price for a science course. You can enroll with a 14-day free trial period while you arrange payment by credit or debit card.
3. 3-ring binder to hold reading assignments, notes, handouts and work returned with feedback. You should keep all notes, handouts, and returned work so that you can use it to study for the Biology I final exam.
4. A laptop computer or tablet (one that meets the published SNC Computer Requirements) and access to the internet and BIOL 101/105 Canvas course. You are automatically enrolled in the Canvas course when you are registered for BIOL 101. You will find it extremely onerous to use a smartphone as your computer for college courses.
5. You MUST regularly check emails related to BIOL 101 and 105. If needed, forward your SNC email to an email or message service that you actually use. See <https://www.sierranevada.edu/resources/it-helpdesk-fa/> for email or computer help, including directions for forwarding your SNC email.

## Attendance

Success in Biology I and Lab is significantly influenced by participation in class and lab activities. **You must attend class to receive credit for that day's CPA and you must do the laboratory activities to get credit for lab assignments.** SNC athletes may turn in CPAs when they are excused from class for travel or competitions. CPA due dates still apply for excused athletes. Athletes must make up missed lab activities outside of class before corresponding lab assignments will be accepted. If you are too ill to attend class or have a family emergency or military duty that takes you away from campus, I may elect to excuse your absence and allow you to turn in work. However, I will NOT excuse absences because you overslept, had to work, gave transportation to someone else in your car, chose to do homework for another class, or went on an SNC-sponsored extracurricular trip.

## Biology I and Lab Assignments, Scoring, and Grades

Grades will be calculated based on the number of points that you earn in Biology I and Lab, using a 1200-point scale. Because BIOL 101 and BIOL 105 are co-requisites (you have to take them together) and the content of each is integrated to help you learn biology, you will earn the same grade for both courses. Sierra Nevada College uses half grades (minus or plus), so students within 1.5% of a grade cutoff will earn the corresponding half grade.

### Grading scale:

≥90% → A	1080 – 1200 pts
80-89.9% → B	960 – 1079 pts
68-79.9% → C	816 – 959 pts
58-67.9% → D	696 – 815 pts
<58% → F	<815 pts

### Point values for assignments:

CPAs (best 25)	10 points each	250 points
Chapter HW (best 15)	10 points each	150 points
Participation assignments	1 point each	60 points maximum
Exams (5)	80 points each	400 points
Final Exam		100 points
Lab assignments (best 12)	20 points	<u>240 points</u>
		Total: 1200 points

Assignments are designed to help you learn biology and reward you for your effort to do so. If you make a good effort on the assignments, you will earn a higher grade in the course than your exam percent average. It would be ideal if the joy of learning were enough reward, but hopefully this grading structure will provide additional incentive to work toward learning.

Consistent with a growth mindset, assignments will help you learn best when you:

1. **Do your own work.** Compare answers to other students to confirm that you did it right, but don't look at other students' work or internet resources to get the answers without trying. Cheaters never learn!
2. **Write answers in your own words.** It shows greater understanding when you can answer in your own words than when you recognize and copy a correct answer in the text or internet source. If you can express the correct answer in your own words, you've got it! If you have a hard time, you don't understand it well and should keep reading about it or discussing it before you write about it. **Cutting and pasting from internet sources or copying from other students or the text is plagiarism, a form dishonesty that has consequences at SNC (see The [Honor Code](#) on page 7 of this syllabus). If you repeatedly plagiarize, I will turn you in for academic dishonesty.**
3. **Give yourself enough time** to make a good effort on reading and other assignments. You should plan to spend an average of **2-3 hours per week outside of Biology I class for each course credit.** This means that you may need to spend at least 12 hours per week on Biology I and Lab outside of class!
4. **Work on assignments as we go along, rather than waiting until a day or two before an exam.** Studies of how people learn show that sleeping after learning helps us remember concepts and facts. If you study a little at a time and sleep between study sessions, then you will learn much more and recall it better in more advanced classes where you are expected to know it.
5. **Try out different options for CPAs and participation activities.** Find the options that are most effective at helping YOU learn. (It may be different than what works best for your peers.)

6. Work with other Biology I students. Humans are social animals and we pay more attention to each other than to books and computers. Collaborative learning works! However, the “divide and conquer” method is NOT a good collaborative learning strategy UNLESS you actively teach each other the material that each person was responsible for. Discuss all questions and answers and make sure that everyone understands. If you get answers from someone else without working to understand them, then you won’t learn much.
7. Come to office hours and ask for help. It is a chance for me to talk with YOU and explain in a way that YOU understand. I enjoy talking with students more than most other parts of my job, so I won’t resent you asking for help. Many of you say you chose SNC to have small class sizes and access to professors, so please take advantage of this perk of attending a small college.
8. Take regular breaks from studying to get a snack, spend a few minutes exercising, go outside... Breaks shouldn’t be hours longer than study sessions, but they will make studying much more effective.
9. Reflect on what you have been doing to learn biology after each exam. Is it working? Do you understand and remember material well enough to earn a C or higher on the exam? If not, then change your game plan and try different assignment options, study times, and talk to me about your experience.
10. If you are learning challenged with dyslexia, ADD, fear of taking exams with the class, or some other situation that makes academic work hard for you, then see Henry Conover to get the accommodations that you are entitled to because of your challenge. I will support all arrangements that help you learn.

Reading assignments: Biology I is an introductory class that is intended to teach you basic concepts and facts in many areas of biology, but, just because it’s an introductory class, doesn’t mean it’s easy. We don’t have time in class to “cover” everything that you need to know about biology, so I expect you to learn the easy material by reading the text. We will use class time for harder material, answering your questions about the reading, activities related to the reading, and even lectures: explanations of challenging material from the reading. I always give you something to do in class to break up lectures and help you process the information actively. I prefer that you read assignments before we work on the material in class, however, reading after class is better than not reading. You will learn the most from CPAs if you do them AFTER reading.

Class preparation assignments (CPAs) require you to begin to learn about class content before class. This will enable you to understand what we do in class much better and to ask questions about the topics that are difficult for you. CPAs are most effective for learning if you do them during or after reading assigned sections of the text. You will learn much MORE if you read the text in order to answer CPA questions than if you Google the questions and paraphrase internet sources. Search the internet only to HELP you understand the reading assignment, not to replace the reading assignment.

You have options for CPAs, because people learn differently. You only have to do one CPA option, but if you choose to do more than one, you can earn a participation point for a good faith effort on the second CPA option.

CPA options:

1. Answer Suzanne’s CPA questions – I will post CPA questions on Canvas that I have written about the assigned reading. This gives you a chance to see what concepts I think are important. However, I don’t write questions about ALL important concepts, because I think some concepts are too challenging for most students to master before we’ve discussed them in class. If you find yourself Googling answers to CPA questions and don’t read the text, then outline the reading assignments instead.
2. Outline the reading assignment – take notes on the reading in your own words. Students who have a hard time disciplining themselves to DO the reading find this CPA option helpful. If you outline, it can be useful to practice answering CPA questions as you study for exams, because then you will have studied concepts that I think are important.

Type CPAs and turn them in by uploading to Canvas. You will earn 50% credit if you turn in a CPA after it is due. Please upload ONLY MS Word documents or pdf files. I cannot open Pages files at all. Converting Pages to Word documents sometimes doesn’t work. Converting Pages to pdf always works. When in doubt, convert files to pdf.

CPAs are scored for effort, not correctness, so you will get full credit if you attempt to answer questions. There is NO PENALTY for being wrong, as long as you aren't obviously bullshitting. Hopefully this will remove some pressure to copy (plagiarize), rather than do your own work. Of course, if you take the time to learn enough to write correct answers, the CPA will help you the most, because we remember things better when we've figured them out on our own. Outlines are also scored for effort – you will lose some points if you skip whole sections of the reading assignment.

Chapter Homework is online homework at Expert TA, available at <http://goeta.link/USY30NV-C9E8C0-1V1>. Answer questions to review your understanding of chapter material after we have covered it in class. Expert TA questions are designed to be used with the Openstax Biology 2e text.

Participation points are intended to reward you for consistently working toward learning biology. You earn one participation point each time that you:

- Come to office hours for help with course content
- Post a question about course content on Canvas or answer another student's question on Canvas (you must be the first to answer the question or add additional information to expand on the answer – no credit for repeating an answer already given, even if it is in your own words)
- Submit more than one CPA option by the end of that module
- Submit exam review questions using questions stems posted on Canvas. 1 participation point earned for each of your questions that I include on a practice exam.
- Answer questions at the end of chapter to test your understanding
- Work the practice exam (bring your work to the exam)
- Document studying for an exam with other students
- Show me other study aids you used to get ready for an exam, such as making flashcards, making an exam study guide, answering questions from a guided note-taking handout...
- Turn in a reflection on how well your Biology I learning strategy is working after an exam
- For other reasons that I haven't thought of, but I decide contribute to your learning biology

You can also lose participation points by

- Using your phone or computer in class to text, shop, play games... (not class-related biology research)
- Keeping other people from paying attention or doing their work
- Doing work for another class during BIOL 101 or 105 class
- Being disrespectful to me or other students in class
- Missing class without informing me about it
- Arriving late to class or leaving early
- Doing less than your share of group work in lab or class
- Leaving SNC cafeteria dishes on the table outside TCES 204 (be a good citizen and return them)
- Other reasons that I haven't thought of, but I decide detracts from you or others learning biology

Your grade will include up to 60 participation points. This is about 5 participation points per week. You are welcome to do many more than 60 participation assignments if you find them helpful for learning biology, but you will earn a maximum of 60 points.

#### Exams:

1. We will have five module exams to test your knowledge of Biology I content. Exams are in **bold type** on the schedule of classes and conclude each Canvas module. I will post practice exams on Canvas about a week before each module exam, so submit practice exam questions before then to earn participation points. (Note that CPAs and Lab assignments, which are scored for effort, are together worth 490 points, whereas all five exams plus the final exam total 500 points. This is why you can earn a higher grade in BIOL 101/105 than your average exam % score.)
2. The final exam at the end of the semester will test Biology I skills, rather than memorized facts. We will have a review session where you will learn exactly which skills will be tested on the final exam.

3. Athletes who miss class on exam dates for competitions will be able to take make-up exams on the same day (home games/meets) or proctored by their coach while traveling. **All students (including athletes) who miss an exam for any other reason or want to improve an exam or class grade can take a cumulative make-up exam at the end of the semester.** Students who pass the make-up exam with a higher grade than their course grade can earn the make-up exam grade instead of their course grade, but only if they earn a C or higher on the make-up exam. This will allow students who learn the material, but have been negligent about completing assignments, to pass the course. **WARNING: it is a rare student who can pass a comprehensive exam without having done assignments for the course, so please don't count on this opportunity to pass without working on the course.**

Lab assignments: You will complete several lab assignments, usually by answering questions on the lab handout. **Lab assignments are scored for effort;** you will lose credit for unanswered questions or bullshit answers. Lab assignments are **due at the end of lab class** unless I announce in lab class that you can have more time. Your team will turn in one group assignment for some labs, while others are individual assignments. **You must finish and turn in your completed lab assignment before you have permission to leave lab class early.** This policy will help many of you finish and remember to turn in labs.

Pre-lab Assignments: Pre-lab assignments make you aware of lab safety, help you review content that you need to know to understand the lab activity, and help you organize your time so you can finish during the class period. **The pre-lab assignment is worth 15% of each lab assignment score, or 3 points.** Students who consistently fail to complete pre-lab assignments will not be allowed to stay for lab and will lose credit for the lab assignment. **Students who spend lab class time downloading or printing lab handouts will lose 2 lab assignment points.**

Midterm grades: Midterm grades will be calculated using all work due through Wednesday, October 23, 2019. There will not be a comprehensive midterm exam, per se, although Exam 2 is scheduled for Wed, October 23.

#### Class policies:

- 1) **No food and drinks in TCES 204 Biology Lab:**  
Food and beverages, even drinking water, are FORBIDDEN by state and federal safety laws in TCES 204, the biology lab. **Students must leave food and beverages on the table outside of the lab room door.**
- 2) **Protective clothing in TCES 204 Biology Lab:**  
Everyone is **REQUIRED BY LAW to wear long pants, closed shoes (heels and toes covered, hard soles), and pull back long hair in TCES 204.** Students who arrive without protective clothing will not be allowed in the lab room and will incur an unexcused absence if they cannot obtain appropriate clothing promptly. Lab coats, gloves, and safety glasses provided by SNC will be worn when working with chemicals.
- 3) **Electronic devices:** **It is disrespectful to use any devices for NON-CLASS PURPOSES** and you will lose participation points when you do. I may also ask students to stow phones and shut laptops when I notice that you are using the for non-class purposes. You MAY use devices to take notes and to look up information related to class. If you must text or call someone during class time in an emergency, please leave the room.
- 4) **Late work policy:**  
You will earn 50% credit for most late work. CPAs and chapter homework assignments are due **at the beginning of class** on the due date and will be counted late more than 5 minutes after the start of class. **Athletes excused from class are still required to meet the same due dates as everyone else.**
- 5) **E-mailed work:**  
If you CANNOT upload assignments to Canvas for some reason, you may email work to [sgollery@sierranevada.edu](mailto:sgollery@sierranevada.edu) or [suzanne.gollery@gmail.com](mailto:suzanne.gollery@gmail.com). You may e-mail MS Office or pdf files. I will always reply to verify that I received your e-mailed work, but not until I have downloaded it. **If I haven't**



replied within 48 hours, you should follow up to make sure that I got your email. Please do NOT consistently email work instead of uploading to Canvas.

**6) Citing sources:**

Cite sources using the MLA citation style. Scientists routinely cite original sources for factual information that is not widely known. For example, one would not have to cite a source when one states that mutations introduce new genetic variability into the human genome, but one would cite a source when stating that mutations accumulate in human DNA at an average rate of 175 mutations per diploid genome per generation<sup>1</sup>. You should cite sources for facts that aren't widely known and aren't stated in our text or lab handouts. Information about MLA style and tools to format citations are found on the SNC Prim Library website [here](#).

**7) Modifications to the BIOL 101/105 course syllabus:**

This syllabus and schedule is intended to provide you with a clear and accurate outline of course content, student outcomes, class topics, assignment due dates, and exam dates. You should keep and refer to the syllabus regularly, in addition to visiting our Canvas course. I reserve the right to make announced changes to the syllabus and class schedule at my discretion if it is in the best interest of my students to do so.

**Student Outcomes for BIOL 101/105:** Upon completion of Biology I and Lab, students will

1. Understand and recall facts and concepts of basic biochemistry and metabolism, cell structure and function, Mendelian and molecular genetics well enough to be successful in upper division biology and environmental science courses.
2. Demonstrate ability to answer questions about biology like those on standardized exams (such as the GRE, MCAT, or senior exit exams).
3. Demonstrate skill at critical analysis, logic, and problem solving involving facts and concepts of molecular and cell biology and inheritance. For example, name a real protein and explain how it exemplifies these properties of proteins: 1) structure is important for protein function, 2) proteins often change shape as they function.
4. Demonstrate competence in basic compound (brightfield) microscopy techniques: 1) prepare a wet mount or stained specimen slide for viewing, 2) locate a specimen and focus on it using the objective specified, 3) clean the microscope, carry, and store it properly.
5. Decide whether or not they have enough interest in science to continue to pursue a rigorous science major.

**Methods of Assessing Student Outcomes** Student outcomes will be assessed using the following:

1. Class preparation assignments coordinated with assigned reading and due at the start of class
2. Online Chapter Homework assignments to help you know how well you understand chapter content
3. Laboratory assignments (short answer questions or problems, research poster)
4. Written in-class, closed-book exams
5. Participation assignments
6. Instructor observations of student participation

**Instructional Strategies**

Biology I and Lab is a foundational science course, which means that you will learn facts and concepts about a wide range of biology subjects to gain a basic overview of our current understanding of how living organisms "work". There is a lot of content to remember, including a large amount of discipline-specific vocabulary. This class will use the flipped classroom approach. This means that I will ask you to learn much of the easier content outside of class by reading the text, using text-associated online materials, and completing assignments. Class preparation assignments (CPAs) will prompt you to make time for learning easy material BEFORE class, preparing you to apply the concepts and learn the most difficult information in class. If you make a good faith effort to prepare for class, then you will have no trouble learning enough content to pass the class, but if you ignore the

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<sup>1</sup> Nachman, Michael W, Crowell, Susan L. "Estimate of the mutation rate per nucleotide in humans." *Genetics* 156.1 (2000): 297-304. Print.

responsibility to prepare for class, you will find that you cannot understand the in-class activities or get enough from class alone to be successful on exams. You will get a lot out of this class if you do your own work on the assignments that I have prepared to help you learn. I will NOT tell you everything you need to know in class, so you will need to work outside of class time to pass the course.

### **Sanctions for Cheating and/or Plagiarism**

#### **The Honor Code**

The faculty of SNC believes students must be held to high standards of integrity in all aspects of college life in order to promote the educational mission of the College and to encourage respect for the rights of others. Each student brings to the SNC community unique skills, talents, values and experiences which, when expressed within the community, contribute to the quality of the educational environment and the growth and development of the individual. Students share with members of the faculty, administration and staff the responsibility for creating and maintaining an environment conducive to learning and personal development, where actions are guided by mutual respect, integrity, responsibility and trust. The faculty and students alike must make diligent efforts to ensure high standards are upheld by their colleagues and peers as well as themselves. Therefore, faculty and students accept responsibility for maintaining these standards at Sierra Nevada College and are obligated to comply with its regulations and procedures, which they are expected to read and understand.

#### **Consequences of Violating the Student Honor Code**

SNC students and faculty share the responsibility for maintaining an environment of academic honesty. Thus, all are responsible for knowing and abiding by the SNC Faculty/Student Honor Code published in the current SNC Catalog. Faculty are responsible for presenting the Honor Code and the consequences of violating it to students at the start of their classes AND for reporting all incidences of academic dishonesty to the Provost. Students are responsible for knowing what constitutes CHEATING, PLAGIARISM and FABRICATION and for refraining from these and other forms of academic dishonesty. Violations of the Honor Code become part of a student's academic record.

- 1<sup>st</sup> Offense: Student receives a zero for assignment/exam and counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 2<sup>nd</sup> Offense: Student fails course and receives counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 3<sup>rd</sup> Offense: Student is expelled.

Cutting and pasting or copying phrases or sentences from internet sources, books, articles, or other students is a violation of the student honor code. If you consistently write using your own words, you will avoid plagiarizing or cheating.

#### **The SNC Email System**

The SNC email system is the official communication vehicle among students, faculty members and administrative staff and is designed to protect the confidentiality of student information as required by the Family Educational Rights and Privacy Act of 1974 Act (FERPA). Students should check their college email accounts daily during the school year.

Students have a right to forward their SNC e-mail to another e-mail account (for example, @hotmail or @gmail). However, confidentiality of student information protected by FERPA cannot be guaranteed for SNC e-mail forwarded to an outside vendor. Having email redirected does not absolve a student from the responsibilities associated with official communication sent to his or her SNC email account.

**Prim Library Resources**

Using the library's resources effectively (not just internet resources) contributes to developing each of SNC's core themes by exposing students to high quality academic resources, diverse opinions, new ideas, and a future that includes building on a liberal arts education. In this course, you encouraged to utilize the library's resources (either on-site or remotely) as you complete your assignments.

**ADA Accommodations**

In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, [hconover@sierranevada.edu](mailto:hconover@sierranevada.edu), office in Prim Library: PL-304.

**The Sierra Nevada College Mission Statement:**

Sierra Nevada College graduates will be educated to be scholars of and contributors to a sustainable world. Sierra Nevada College combines the liberal arts and professional preparedness through an interdisciplinary curriculum that emphasizes entrepreneurial thinking and environmental, social, economic and educational sustainability.

**The Core Themes:** Four core themes from the SNC mission are woven through all courses and the life of the community at SNC.

**Liberal Arts    Professional Preparedness    Entrepreneurial Thinking    Sustainability**

**The schedule of classes:** topics, reading assignments, and assignment due dates for BIOL 101 and BIOL 105 begins on the next page. This syllabus schedule is likely to be more complete than our Canvas course, although Canvas will have more details for many assignments, and assignments are often turned in by uploading them to Canvas.



## Schedule of classes for BIOL 101/105 Biology I and Lab

Week	Date	Day	Class preparation assignments	Class Topic	<sup>2</sup> Work Due
<b>Module Intro: How to be successful in Biology I (and college)</b>					
1	Sept 16	M	Bring laptops and your health insurance card to class.	Canvas, Expert TA, Biology 2e text, What scientists know about learning	Participant agreement
	Sept 18	W	Reading assignment on Canvas Do CPA 1 (see footnote 3)	We all need Growth Mindsets! Are good grades good?	<sup>3</sup> CPA 1
	Lab	W	Prelab assignment (on Canvas) Check field trip equipment list	Field trip: How scientists think - observations, questions, hypotheses, data	How Scientists Think
	Sept 20	F	Reading assignment on Canvas Do CPA 2 (see footnote 3)	How do college and Biology I promote YOUR goals? Learning plans; Team Contracts	CPA 2 Lng Plans Contracts
<b>Module 1: Big ideas in biology, biological molecules, and cells</b>					
2	Sept 23	M	Read Chapter 1 Do CPA 3	Basic vs applied science, alive or not, scientific thinking, evolution and phylogenetic trees	CPA 3
	Sept 25	W	Read Chapter 2 through p. 48 Do CPA 4	Atoms, molecules, and chemical bonds	CPA 4 Ch 1 HW
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Microscopy and pond organisms	Microscopy
	Sept 27	F	Read Chapter 2 from section 2.2 to end Do CPA 5	Properties of water, organic molecules, functional groups	CPA 5
3	Sept 30	M	Read Ch 3, sections 3.1, 3.2, 3.3 & 3.5 Do CPA 6	Making and breaking biological molecules, carbohydrates, lipids, and nucleic acids	CPA 6 Ch 2 HW
	Oct 2	W	Read Ch 3, section 3.4 Do CPA 7	Proteins	CPA 7
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Molecular structures, water, and pH	Molecules, water, pH
	Oct 4	F	Read Ch 4 through section 4.3 (p. 121) Do CPA 8	Studying cells, prokaryotic cells, eukaryotic cells	CPA 8 Ch 3 HW
4	Oct 7	M	Read Ch 4, sections 4.4 to end Do CPA 9	Endomembrane system, cytoskeleton, cell junctions	CPA 9
	Oct 9	W	Review CPAs, notes, handouts, HW Do practice exam	<b>Exam 1: Chapters 1 – 4</b>	Ch 4 HW
	<b>Module 2: Cell membranes, transport across cell membranes, how cells get and use energy</b>				
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Factors that affect enzyme activity	Enzyme activity
	Oct 11	F	Read Ch 5 (all) Do CPA 10	Cell membranes, transport across membranes	CPA 10

<sup>2</sup> All CPA assignments are DUE at the beginning of class and late work penalties apply thereafter. Labs are DUE at the end of the lab period unless announced otherwise in lab class. Late CPAs and labs are accepted for at least 50% credit as long as you attended class (or made up the lab for athletes) when the late assignment was due.

<sup>3</sup> Answer Suzanne's CPA questions (posted on Canvas) **OR** outline reading assignments

Week	Date	Day	Class preparation assignments	Class Topic	Work Due
5	Oct 14	M	Read Ch 6 (all) Do CPA 11	Energy, ATP, enzymes, biochemical pathways	CPA 11 Ch 5 HW
	Oct 16	W	Read Ch 7, sections 7.1 through 7.4 Do CPA 12	Aerobic respiration	CPA 12 Ch 6 HW
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Osmotic gradients across cell membranes	Osmotic gradients
	Oct 18	F	Read Ch 7, sections 7.5 to end Do CPA 13	Fermentation, food as energy and building blocks, regulation of respiration	CPA 13
6 Midterm Week	Oct 21	M	Read Ch 8 Do CPA 14	Photosynthesis	CPA 14 Ch 7 HW
	Oct 23	W	Review CPAs, notes, handouts, HW Do practice exam	<b>Exam 2: Chapters 5 – 8</b>	Ch 8 HW
	Lab	W	Download and print lab	Photosynthesis experiments	Photosynthesis
	Oct 25	F	<i>Nevada Day Holiday</i>		
Academic advising Oct 28 – Nov 8: Make an appointment with your advisor and plan your spring 2020 classes					
Module 3: Cell signaling, cell division, cancer, and reproduction					
7	Oct 28	M	Read Ch 9, sections 9.1, 9.2, 9.3 Do CPA 15	Cell signaling I	CPA 15
	Oct 31	W	Read Ch 9 sections 9.3 (again), 9.4 Do CPA 16	Cell signaling II	CPA 16
	Lab	W	Download lab, print if you wish Prelab assignment (on Canvas) Bring your chosen poster lab to class	Scientific posters	Poster presentations
	Nov 1	F	Read Ch 10, sections 10.1, 10.2, 10.5 Do CPA 17	Cell division in eukaryotic and prokaryotic cells	CPA 17 Ch 9 HW
8	Nov 4	M	Read Ch 10, sections 10.3 and 10.4 Do CPA 18	Control of cell cycle and cancer	CPA 18
	Nov 6	W	Read Ch 11 (all) Do CPA 19	Meiosis and sexual reproduction	CPA 19 Ch 10 HW
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Cell division	Cell division
	Nov 8	F	Review CPAs, notes, handouts, HW Do practice exam	<b>Exam 3: Chapters 9 – 11</b>	Ch 11 HW
	Nov 8	F	Last day to drop any 12-week block class with a W grade		

Week	Date	Day	Class preparation assignments	Class Topic	Work Due
<b>Module 4: Inheritance patterns, chromosomes, and DNA structure, replication, and repair</b>					
9	Nov 11	M	<i>Veteran's Day Holiday</i>		
	Nov 13	W	Read Ch 12 through pedigree analysis (p. 338); Do CPA 20	Simple inheritance, probability, Punnett squares, and pedigree analysis	CPA 20
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Inheritance practice I	Inheritance I
	Nov 15	F	Read Ch 12 pp. 338 alternatives to dominance... to end and Ch 13, section 13.1; Do CPA 21	Alternatives to simple dominance or recessiveness, chromosomal basis of inheritance, genetic linkage	CPA 21
10	Nov 18	M	Read Ch 13, section 13.2 to end Read Ch 14, section 14.2 (skip 14.1) Do CPA 22	Chromosomal mutations and inherited disease DNA structure	CPA 22 Ch 12 HW
	Nov 20	W	Read Ch 14, sections 14.3 to end Do CPA 23	DNA replication and DNA repair	CPA 23 Ch 13 HW
	Lab	W	Download and print lab Prelab assignment (on Canvas)	Inheritance practice II	Inheritance II
	Nov 22	F	Review CPAs, notes, handouts, HW Do practice exam	<b>Exam 4: Chapters 12 – 14</b> (No make-up exam if leaving early)	Ch 14 HW
<i>Week of November 25 – Thanksgiving break</i>					
<b>Module 5: Genetic code, transcription, RNA processing, translation, control of gene expression</b>					
11	Dec 2	M	Read Ch 15 through section 15.4 Do CPA 24	Genetic code, transcription, and RNA processing in eukaryotes	CPA 24
	Dec 4	W	Read section 15.5 and Ch 16 thru 16.2 Do CPA 25	Translation (protein synthesis) Control of transcription in prokaryotes	CPA 25
	Lab	W	Download and print lab Prelab assignment (on Canvas)	PCR and DNA fingerprinting I	
	Dec 6	F	Read Ch 16, section 16.3 to end Do CPA 26	Control of gene expression in eukaryotes	CPA 26 Ch 15 HW
12	Dec 9	M	Review CPAs, notes, handouts, HW Do practice exam	<b>Exam 5: Chapters 15 and 16</b>	Ch 16 HW
	Dec 11	W	Do CPA 27 (on Canvas)	Review for final exam	CPA 27
		W	Prelab assignment (on Canvas)	PCR and DNA fingerprinting II	DNA fingerprinting
	Dec 13	F	Review CPA 27 Do practice final exam	<b>Final Exam</b>	