

Biology 10: Introduction to Principles of Biology

Course Syllabus for section 9767: Summer 2018

Meeting Times:	Lecture meets 4 days per week: M, T, W, Th- 5:30-7:25pm in Richard Call room 639 Lab meets 2 days per week: T, Th- 7:30-10:30pm in E Wing room 313
Instructors:	Lecture: Elizabeth Keddy Email: ekeddy@santarosa.edu Office hours: Wednesdays 2:20-5pm Office location: E Wing room 322 Lab: Kirsten Swinstrom, PhD Email: kswinstrom@santarosa.edu Office hours: After lab or by appointment
Course Description:	This is an introductory course intended to introduce students to basic topics in biology including: scientific inquiry, ecology and evolution, organismal form and function, chemistry of life, cell and molecular biology, genetics, and biodiversity.
Required Text:	Campbell Essential Biology with Physiology 5th ed. (4 th ed. is acceptable), 2016, Simon, Dickey, Hogan & Reece. Petaluma Campus Biology 10 Laboratory Manual You will need to bring your laboratory manual to each lab session.
Course Objectives:	Upon completion of this course, the student will be able to summarize and explain the following topics: 1. Apply the scientific method to investigating and evaluating biological phenomena. 2. Summarize the concept of evolution including the historical development, evidence and mechanisms, and apply these to patterns of biodiversity. 3. Integrate basic principles as they apply to biological systems, such as cellular processes, anatomy, physiology, genetics, ecology, and evolution. 4. Investigate how humans are impacted by ecological processes and relationships and how humans affect these. 5. Perform laboratory techniques, including microscopy, with a high level of expertise without assistance or instruction.
Attendance:	Success in this course requires maintaining a regular schedule for the entirety of the course. <u>Lecture:</u> You are expected to arrive and be ready to learn at the start of each class period. If you arrive to a lecture session late, please proceed to the back of

the room. **Please do not disrupt the class by walking up to ask for handouts. Additionally, if you are late to class and there is an assignment due, your assignment is late as well.** This means you will either receive a zero on the assignment, or I may assign partial credit depending on the degree of tardiness. It is best to plan to get to class a few minutes early to situate yourself. According to SRJC policy, any student who misses more than 10% of the scheduled meeting hours may be dropped from the course.

Laboratory: Information for all labs is provided at the start of the lab period. Therefore, it is imperative that you arrive on time. If you are more than 15 minutes late to a laboratory session, you will be counted as absent for that day. Because this is a laboratory course, missing the laboratory sessions is not acceptable. Accumulating more than 2 laboratory absences will result in your overall grade being lowered by 5%. For each laboratory meeting you miss after 3 absences, your grade will be lowered an additional 5%.

Conduct:

All participants of this course are expected to be respectful of one another to foster a safe, healthy and distraction-free learning environment. It is unacceptable to engage in behavior that is disruptive or rude to the instructor, your peers, or any guests. I will not tolerate behavior that is offensive or makes other students uncomfortable. In my classroom, I strive to maintain an inviting atmosphere in which all students feel appreciated.

Behaviors which are considered unacceptable include, but are not limited to: talking out of turn, challenging the rules of the course, harassment of instructor or peers, disrespectful or foul language, and academic dishonesty.

Additionally, to foster a distraction-free learning environment, **cell phones, computers and other electronic equipment are not permitted** without prior consent. Repeatedly breaking this rule will result in your dismissal from the lecture session.

If you do not conduct yourself appropriately, you will be asked to leave the class for the day, and may be suspended from an additional class period. Ongoing problems will be referred to the Vice President of Student Services for formal disciplinary action.

Laboratory safety will be explained during your first laboratory session. **Any student not following safety protocol will be asked to leave and may be suspended from returning to the laboratory for one lab period.**

Academic
Dishonesty:

All forms of cheating, stealing and plagiarizing with the intent to defraud are prohibited and will be reported. If you are caught cheating on an exam, you will be given a zero on that exam. Cheating includes but is not limited to: looking at another student's answers, using cheat sheets, using your phone, or talking to another student while taking an exam. If you are caught plagiarizing on an assignment, you will receive a zero on that assignment. Plagiarizing includes copying from a website, a book, another student, or any other source

without giving proper credit. Any students who submit identical work will both receive a zero on that assignment.

Computer Use:

Your instructor will use Canvas and/or SRJC Portal throughout this course to communicate with you, post course materials, and administer weekly quizzes. **You are responsible for checking your account.** If you do not own a computer, there are computers on campus. I recommend scheduling time each week to use these computers. **All of the handouts will be listed on Canvas.** Go to “Modules” to find them if you are absent or need an additional copy. Additionally, study resources, answer keys, and your grades can be found on Canvas.

Grading:

3 Lecture Exams and a final exam:	50% (12.5% each)
Lab Exams:	24% (8% each)
Assignments:	16%
Weekly Quizzes:	10%

Final Grades will be assigned as a letter grade according to the following:
A = > 88.9% B = 79-88.9% C = 68-78.9% D = 55-67.9% F = < 55%

Exams:

There are 3 exams that will be given during lecture times, and one final exam given during the final class period. We will have a brief exercise prior to the exam, then you will have the rest of the lecture period to complete each exam. You must turn in your exam at the end of the lecture time whether you’ve finished the exam or not.

NOTICE: If you are absent for an exam without making prior arrangements with the instructor, you will be given a ZERO for that exam. “Prior arrangements” means that you have notified me at least one week in advance and you will take the exam early. Special exceptions will be made for the following:

- an illness with a signed doctor’s note stating that you visited the doctor on the day of the exam, or that you visited the day before the exam, and the doctor indicated that you could not return to class until after the exam (this also includes visiting the doctor for a dependent)
- a death in the family (with documentation)

In these cases, please email me within a day of the exam to make arrangements to make up the exam.

The tests count for a large portion of your grade, so please mark your calendar with the following dates:

Exam #1 is scheduled for **June 28th** and will include information from lectures 1-6.

Exam #2 is scheduled for **July 11th** and will include information from lectures 7-10.

Exam #3 is scheduled for **July 26th** and will include information from lectures 11-17

The **final exam** is scheduled for the last day of class on **August 9th** and it is comprehensive, with $\frac{1}{2}$ of the test covering material tested on exams 1-3 and the other $\frac{1}{2}$ of the test covering new material (lectures 18-23).

It is the policy of the Life Sciences Department to not return exams to students. Once graded, your exams will be filed and available for review during the semester. After each exam is graded you have one week to hand in any rebuttals, in writing, concerning the grading of that exam. After that week, your grade will remain as given. Once final course grades are submitted, students have two months to request an appointment to review any exam for the previous semester. Exams (and any unreturned work) will be shredded two months after final grades have been posted.

Extra Credit: You will have the opportunity to complete one extra credit assignment per exam. By thoroughly completing the assignment, you can earn up to 3 points added to your test score for exams 1-3, and up to 5 points added to your final exam score. The extra credit assignments must be submitted at the start of the lecture period in which they are due. Late submissions will not be accepted. The due dates are listed on the syllabus and the instructions are on Canvas and/or provided during the lecture session.

Lab Exams: Your understanding of the practical application of the biology topics will be assessed using 3 lab exams. These assessments will be given during the laboratory period.

The first lab exam is scheduled for **week 2 on June 28th** and will cover labs 1-3. Lab exam #2 is scheduled for **Week 5 on July 17th** and will cover labs 4-7. Exam #3 is scheduled for **Week 8 on August 7th** and will cover labs 8-12. **Because materials need to be set up in the lab for these assessments, make-ups cannot be given.**

Assignments: There will be assignments to be submitted for credit, some during lecture and some for homework. Homework assignments are to be done individually. Some in-class assignments will be done as a group and submitted as a group. Each member of the group will receive the same grade for that assignment. If you are absent for an assignment that was completed during the class period, you will not be able to complete the assignment for credit. However, you will be permitted to complete 1 *make-up* assignment that will be given near the end of the quarter. *Additionally, your lowest assignment grade will be dropped.*

Policy on late work: All assignments are due at the start of class. I will not accept assignments submitted late. However, at my discretion, I may accept assignments submitted after the start of class time but on the same day. Points will be deducted in this case (even if it is only 5 minutes late).

Weekly Quizzes: **You will take quizzes twice a week on Canvas that will be due at 11:59pm every Friday and Sunday.** These quizzes are to be completed individually. The online quiz must be completed within 10 minutes (to discourage you from

relying on your notes). Once you open the quiz, the time starts. You cannot close or pause the quiz and come back to it. There will be no make-ups of quizzes regardless of the reason.

The quizzes that are due on Fridays will be based on the lectures and/or assignments completed on Monday and Tuesday. The quizzes that are due on Sundays will be based on the lectures and/or assignments completed on Wednesday and Thursday. To help you study, vocabulary and question lists can be found on Canvas under the Module for the appropriate week. I teach with the assumption that you have learned the vocabulary by the next lecture period. Therefore, the quizzes allow you to find out if you've learned the material, and keep you from getting behind. This is to encourage you to study throughout the course, rather than waiting until there is an exam.

Your 2 lowest quiz scores will be dropped prior to calculation of your final grade.

Additional
Support:

Support services are available to you if you struggle in this course. I am more than happy to help but please don't wait until the last minute. Please contact me for extra help.

Accommodations are collaborative efforts between students, faculty, and the Disability Resources Department (DRD). Students with accommodations approved through DRD are responsible for contacting me during the first week to discuss these accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DRD should contact DRD immediately: Jacobs Hall room 101, phone: 707-778-2491.

Following is the tentative schedule for the course. I will notify the class of any changes and it is your responsibility to keep track of those changes.

Week	Date	Topic	Assignment Due	Lab Activity
1	6/18 6/19 6/20 6/21	Syllabus, Lecture 1: Science Intro Lecture 2: Chemistry & Water Lecture 3: Chemistry of Life Lecture 4: Ecology	M- Read: Ch. 1, assignment: Sci Method T- Read: Ch. 2 W-Read: Ch. 3, assignment: Biomolecules Th- Read: Ch. 18, 440-443	Lab#1: Biological Concepts Lab #2: Properties of Water
2	6/25 6/26 6/27 6/28	Lecture 5: Ecological Analysis Lecture 6: Origin of Life, Prokaryotes vs Eukaryotes Catch up and Review #1 Test #1	M- Read: Ch. 19, Ch. 20 T- Read: 292-306, 54-59 W- Biomolecules EC due	Lab #3: Enzymes Lab Exam #1
3	7/2 7/3 7/4 7/5	Lecture 7: Cell Structure, Function Lecture 8: Growth & Mitosis Holiday Lecture 9: Meiosis & Gametogenesis	M- Read: Ch. 4, 5, Assignment: Cells T- Read: 563-570, 613-615, 120-129 Th- Read: 130-140, 551-557, Assignment: Mitosis & Meiosis	Lab #4: Scopes and Cells Lab #5: TBD
4	7/9 7/10 7/11 7/12	Lecture 10: Animal Reproduction Catch up and Review #2 Test #2 Lecture 11: Genetics	M- (Read: Ch. 26) T- EC due Th- Read: Ch. 9	Lab #6: Mitosis Lab #7: Meiosis
5	7/16 7/17 7/18 7/19	Lecture 12: Genetics Lecture 13: Theory of Evolution 1 Lecture 14: Theory of Evolution 2 Lecture 15: Theory of Evolution 3	M- Read: Ch. 9, Assignment: Breeding Aliens T- Read: Ch. 13 W- Read: Ch. 13-14 Th- Read: Ch. 13-14	Lab Exam #2 Lab #8: Genetics
6	7/23 7/24 7/25 7/26	Lecture 16: DNA history and structure Lecture 17: DNA Replication & Gene Expression Catch up and Review #3 Test #3	M- Read: 170-175, Assignment: DNA structure T- Read: Ch. 10, 11 W- DNA EC due	Lab #9: Evolution Lab #10: Fungi
7	7/30 7/31 8/1 8/2	Lecture 18: Plantae and Protista Lecture 19: Plant Structure & Photosynthesis Lecture 20: Animal Diversity Lecture 21: Animal Structure & Function	M- Read: 307-311, 316-327 T- Read: Ch. 28, 629-631, Ch. 7 W- Read: Ch. 17 Th- Read: Ch. 21	Lab #11: Plants Lab #12: Animals
8	8/6 8/7 8/8 8/9	Lecture 22: Animal and Cell Respiration Lecture 23: Animal Digestion & Nutrition Final Review Final Exam	M- Read: Ch. 6 Assignment: Respiration T- Read: Ch. 22 W- Activity Log EC due, optional make-up assignment due	Lab Exam #3 Lab #13: Protists and Pondwater

Ideas to help you excel in this course

1. **Attend class regularly.** All assessment is based on the lecture and labs (not on the book). If you are absent, you are missing out on vital information. Additionally, future topics demand an understanding of topics learned earlier in the quarter. If you don't learn early on, you'll struggle later.
2. **Create a schedule for yourself.** Write down everything you have to do in your personal life and schedule time for your student life. Look over the syllabus, schedule time for reading, completing your assignments and studying.
3. **When you study, do nothing else.** Turn off the T.V., the computer, your phone, etc. If your house is too hectic, study in the library. If you aren't focusing, you aren't learning.
4. **Make flash cards and practice tests.** Studies have shown that the best way to learn is to challenge yourself to recall the answer. If all you do is read over your notes, the information won't stick as well. Flash cards are a great way to memorize vocabulary. Practice tests will help you to explain topics in depth, identify the things that you don't know and need to review, and will reduce testing anxiety. If you're a social learner, study in a group and take turns explaining answers to each other.
5. **Do not wait until there's a test to study.** Review your notes daily. Make sure you understand all of the topics from a lecture prior to the next scheduled lecture. One tactic some students have found to be helpful is rewriting the notes after each lecture. This way, you can easily identify anything you missed or didn't understand. Learn the weekly vocabulary and answer questions as soon as you receive your worksheet.
6. **Get organized.** Keep a binder with lecture notes and other handouts.
7. **Use the lab time to learn.** This is the time for you to apply what you learned in lecture, so don't rush.
8. **Ask questions if you don't understand.** There are no stupid questions. I'm happy to explain things in more depth when required, and will meet with you outside of class when necessary. If you're struggling, let me know. I'm here to help.
9. **Make friends.** If you're absent, you can copy their notes. You can study and learn together.
10. **Follow instructions.** I try to give detailed instructions for all assignments. If you don't follow the instructions, your assignment will be incomplete and your grade will be lowered. Most assignment grades are based on whether you included all of the information you were supposed to, answered all of the questions, and followed the proper format.
11. **Don't miss a lecture test or lab exam!** Together, they account for 64% of your grade. Review the schedule and make any accommodations necessary to be in class on those days. If you have a job that requires you to be on call, give your boss those dates and inform him/her you will not be able to work during those times. By registering for this class, you have made a commitment to be in class during the scheduled class time.

Biology 10: Introduction to Principles of Biology
Course Contract for section 9767
Summer 2018

I have read, understand and agree with all of the terms of the Biology 10 syllabus.

I understand what the assignments are, when the exams are scheduled, and the criteria for grading.

I understand that I must get prior approval from the instructor in the event that I will be absent from an exam, otherwise I will receive a zero on the missed exam.

I understand the proper way to conduct myself, and I will not be permitted to remain in class, the laboratory or on a field trip if my conduct is inappropriate.

Ultimately, I understand what is expected of me and take full responsibility for my grade in this course.

Print Last name

First name

Signature

Date

Please bring a copy of your signed contract to the second day of class to continue your enrollment.