Syllabus: full syllabus

Biology 10, Introduction to Principles of Biology

Sections 2311, 2312 - Full Course Syllabus

Return to syllabus page with links (https://canvas.santarosa.edu/courses/47837/assignments/syllabus)

Course Description

Introductory course in biology including: scientific method, ecology, biodiversity, physiology and anatomy, chemistry of life, cell and molecular biology, genetics, and evolution.

Student Learning Outcomes

Upon completion of the course, students will be able to:

1. Explain the core concepts of biology (evolution and adaptation, structure and function, systems and biology, flow of information, flow of energy and matter) as they apply to appropriate topics of cell and molecular biology, organismal biology, genetics, evolution and ecology.
2. Integrate related core concepts.
3. Demonstrate skill in core competencies.

Objectives

During this course, student will:

1. Discuss relationship and connections between the five core concepts.
2. Evaluate how evidence for evolution relates to the scientific process and be able to construct an argument to counter common evolution misconceptions.
3. Apply the core concept of evolution and adaptation to all course content, cell and molecular biology, genetics, organismal, and ecology.
4. Integrate microevolutionary mechanisms with macroevolution.
5. Correlate the structure and function of plant and animal organ systems, organs, tissues and cells.
6. Compare and contrast the cell structure and function of prokaryotic and eukaryotic cells and of plant and animal cells.
7. Integrate concepts of diffusion and osmosis with cell membrane structure and mechanisms of transport.

8. Explain the relationships between the structure of atoms, molecules, and biological polymers, and their significance to cells, physiology, genetics, and evolution.
9. Integrate knowledge of molecular genetics, inheritance, and cell division (mitosis and meiosis), and apply these to evolutionary biology.
10. Apply understanding of negative feedback loops at the cellular and physiological level.
11. Integrate concepts of molecular, cellular, physiological, and ecological energy flow and nutrient cycling.
12. Apply knowledge of ecological principles to current ecological problems.
13. Integrate different levels of the biological hierarchy and examine emergent properties.
14. Test ideas with evidence, applying the scientific process to biological investigation including data analysis and interpretation.
15. Evaluate evidence as part of a scientific community.
16. Apply laboratory techniques, including proper microscope use, to observe and experiment with biological phenomena.

Class Meetings

Lectures will be mostly asynchronous (pre-recorded, watch when you can) with some exceptions.

Labs will be mostly synchronous (live on zoom) with some exceptions.

See **the tentative course calendar (https://canvas.santarosa.edu/courses/47837/pages/tentative-course-schedule)** for details.

Instructor Contact

Riva Bruenn

Please call me Riva (pronounced REE-vah) and use she/her pronouns for me.

Office Hours (find zoom links by clicking TechConnect Zoom in the course navigation):

- Mondays 10:30am-11am
- Wednesdays 10:30am-11am and 2pm-3pm
- Thursdays 9am-10am
- Also available for 1 on 1 or group meetings by appointment - send me a Canvas message with a few days and times that work for you

I respond to Canvas Inbox message within 24 hours M-F, by Monday afternoon if sent between 5pm Friday and 5pm Sunday.

You may also email me at **rbruenn@santarosa.edu (mailto:rbruenn@santarosa.edu)**

Course Web Site

Students will use this Canvas course web site for instructional content, assignment instructions, submitting assignments, viewing classmate's work, sharing resources, and viewing grades.

Instructor Announcements and Q and A Forum

The instructor will post announcements on the “Instructor Announcements” page in Canvas throughout the semester. Canvas notifies students according to their preferred Notification Preferences as soon as the instructor creates an Announcement.

There are also two discussion boards you can use to post questions. I encourage students to answer each other's questions, but if no one has answered, I will respond within 48 hours.

Q and A about course and assignment details (https://canvas.santarosa.edu/courses/47837/discussion_topics/325859)

Q and A about course content (https://canvas.santarosa.edu/courses/47837/discussion_topics/325858)

Textbooks

Concepts of Biology, OpenStax free online textbook

You can find our textbook online here: **Concepts of Biology Introduction (https://openstax.org/books/concepts-biology/pages/1-introduction)**

You can also locate and order a paper copy of the textbook online via the **SRJC Bookstore. (https://bookstore.santarosa.edu/)** Note that if you want to pick your books up in Petaluma, you need to order them from the Petaluma Bookstore website.

- OpenStax Concepts of Biology
- Fowler, Samantha and Roush, Rebecca and Wise, James
- ISBN-10: 1-947172-03-4

Biology 10 Lab Manual, Petaluma Campus

- Arbor Crest Publishing, 2019
- **make sure to get the Petaluma version, not Santa Rosa**

Required Software

You will need the following software for this course.

- **Adobe Reader (http://get.adobe.com/reader/)**

- Open Office (https://www.openoffice.org/download/index.html)

Grading Policy

Visit the “Grades” in Canvas to keep track of your grades. I grade and post grades and comments on the online Canvas gradebook. I will return grades and/or feedback 1 week after the deadline, or 1 week after submission for late work.

Grades will be assigned as follows:

A	**90%**	**900 points or more**
B	80%	**800 to 899** points
C	70%	**700 to 799** points
D	60%	**600 to 699** points

If taking Pass/No Pass you need at least 70% of the total class points and complete all exams to pass the course.

Points will come from the following assignments and assessments:

Breakdown of points for the semester

Assignment/assessment	Points	% of your final grade
2 essays/projects (outline 5pts, draft 10pts, peer review 10pts, final 25pts)	100	10
12 labs	72	7.2
2 study guides	28	2.8
microscope quiz	50	5
9 quizzes	90	9
3 lecture exams	210	21
3 lab exams	300	30

1 cumulative final exam	50	5
3 scientist spotlights	30	3
4 self assessments	40	4
4 graded discussions	30	3
totals:	1000	100

See each assignment/assessment page for details.

Exams

There will be online lecture and lab exams taken through Canvas. The material comes from the textbook, class lectures and supplemental materials. If any exam is missed, a zero will be recorded as the score. It is your responsibility to take the online exams by the due date.

Late Policy

All assignments are due **at 11:59pm PST** on the due date. There is no need to ask for an extension: I will accept late work for full credit up unit the unit closes (9/25 for unit 1, 10/23 for unit 2, 12/11 for unit 3) except for essay/project deadlines and some surveys (see assignments for details). After a unit closes, I cannot accept, give feedback on, or grade late work.

Make sure to view your uploads to ensure they are visible.

- Any uploads must be in pdf, doc, docx, jpg, jpeg, tiff, or png format.
- I cannot accept links to live documents (google drive/google doc/google slides etc) as they will not be visible to me through the Canvas speed grader. If you have a file in this format, download it in pdf format, then upload it to Canvas to submit.
- If I cannot view a document, I cannot accept it.
- If you are unsure of your ability to upload a submission, make sure to attempt it early in case you run into any issues I may be able to help you with.

Pass-NoPass (P/NP)

You may take this class P/NP. You must decide before the deadline, and add the option online with TLC or file the P/NP form with Admissions and Records. With a grade of C or better, you will get P.

You must file for the P/NP option by 9/27. Once you decide to go for P/NP, you cannot change back to a letter grade. If you are taking this course as part of a certificate program, you can probably still take the class P/NP. Check with a counselor to be sure.

My tips for success

- Regularly check Canvas, especially **the tentative course schedule (https://canvas.santarosa.edu/courses/47837/pages/tentative-course-schedule)** , and plan at least a week ahead.
- Plan to spend 5-8 hours on this class outside of lecture and lab hours.
- Make a schedule for yourself with reachable, prioritized goals for each study/work period.
- Review lecture notes after each class (especially study guide questions and questions in the lecture videos)
- Review and prepare for each lab. Read labs ahead of time and answer some questions.
- If you miss a question on a quiz or activity, figure out why your answer was not correct, what the correct answer is, and why.
- Use **the student services (https://canvas.santarosa.edu/courses/47837/pages/support-for-students-learning-online)** . **(https://laney.edu/biology/resources-for-supporting-students/)**
- If you have a question or are confused, *please speak up*! Other students are almost certainly confused as well but may not want to ask.
- Every class and every student is different – work with me to make this the most effective learning environment it can be by communicating your needs and giving me feedback.

Advice from previous students, in their own words

- “complete the study guide questions each week – you will thank yourself so much!”
- “always look at the module page for important information”
- “build connections with other students” & “join a study group”
- “remain calm and have faith in your ability to complete the course”
- “don’t miss class”
- “ask a lot of questions when confused”
- “pick a solid group to work with”
- “be prepared to take in a lot of information. Have an open mind and keep a positive attitude”

Accommodations

Students with disabilities who believe they need accommodations in this class are encouraged to contact Disability Resources (527-4278), **disabilityinfo@santarosa.edu (mailto:disabilityinfo@santarosa.edu)** as soon as possible to better ensure such accommodations are implemented in a timely fashion. You will need to provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to receive accommodations.

I want you to have what you need to succeed, so if you may be eligible, please seek all accommodations you are entitled to even if you have not in previous classes.

Important Dates

Day Class Begins: 8/17

Day Class Ends: 12/18

Last Day to Add without instructor's approval: 8/23

Last Day to Add with instructor's approval: 9/6

Last Day to Drop without a 'W' symbol: 9/6

Last Day to Opt for Pass/No Pass: 9/27

Last Day to Drop with a 'W' symbol: 11/15

Dropping the Class

If you decide to discontinue this course, it is your responsibility to officially drop it to avoid getting no refund (after 10% of course length), a W symbol (after 20%), or a grade (after 60%). Also, for several consecutive, unexplained absences, the instructor may drop a student (but do not rely on this).

Attendance

Students who do not log-into the online class after the second day of the semester will be dropped from the class. It is strongly advised that if you need to miss more than one class/homework deadline in a row that you contact me to avoid being dropped from the class.

Standards of Conduct

Students who register in SRJC classes are required to abide by the SRJC Student Conduct Standards. Violation of the Standards is basis for referral to the Vice President of Student Services or dismissal from class or from the College. See the **Student Code of Conduct page. (https://student-conduct.santarosa.edu/)**

Collaborating on or copying of tests, quizzes, or homework in whole or in part will be considered an act of academic dishonesty and result in a grade of 0 for that test or assignment. I encourage students to share information and ideas, but not their work. All work for this class must be original and completed individually unless otherwise specified in the assignment details.

See these links on Plagiarism:
SRJC Writing Center Lessons on avoiding plagiarism (http://srjcstaff.santarosa.edu/~jroyal/research/plagiarism/plagiarism.html)
SRJC's policy on Academic Integrity (http://www.boarddocs.com/ca/santarosa/Board.nsf/goto?open&id=A63TMC78051C)

Other Important Policies and Practices

Live zoom sessions

We will be using live zoom sessions for lecture reviews, and for most labs. I recognize that by signing into zoom, we are all essentially inviting each other into our homes. This requires respect and trust.

We are also taking steps to connect in ways that will make our class more effective.

- You will never be required to share your video for this class, but I encourage you to do so especially during small group work. Seeing each others faces helps us communicate more easily and effectively, and humanizes our online learning environment.
- Respect each other's privacy. Think carefully about impact before making any comments about anyone's background environment or choice to share or not share video.
- Feel free to move around your own home as you wish (bathroom breaks, snacks, stretching, etc.) no need to ask permission.
- Keep your microphone muted when you are not speaking to prevent background noise (I may mute everyone if background noise is becoming a problem).
- Make sure the name that shows is what you'd like to be called.
- If you are comfortable, please add your pronouns to your name (ex. she/her, he/him, they/them). This normalizes pronoun sharing and ensures that we all refer to each other properly.
- Contribute to our full class and small group (in zoom breakout rooms) discussions. We will all be depending on one another to make this work online!

Avoid Plagiarism Like the, er, Plague

Although most students have likely heard about plagiarism during their years of schooling, it still is prevalent-even in higher education.

The video below reviews what plagiarism is and how not to do it.

Plagiarism: How to avoid it **(http://www.youtube.com/watch?v=2q0NlWcTq1Y)**

(http://www.youtube.com/watch?v=2q0NlWcTq1Y)

Netiquette, or Why Is It Harder to Be Polite Online?

Netiquette refers to using common courtesy in online communication.

In our first week of classes we will come up with shared classroom goals and values. In the meantime, please use these guidelines:

- Forward emails and other private messages only with a writer's permission.
- Be considerate of others' feelings and use language carefully.
- Cite all quotations, references, and sources (otherwise, it is plagiarism).
- Use humor carefully. It is hard to "read" tone; sometimes humor can be misread as criticism or personal attack. Feel free to use emoticons like :) for a smiley face to let others know you are being humorous.
- To ensure that others can understand you, use complete sentences and standard English grammar to compose posts. Review work before submitting it.
    - Text speak, such as "ur" for "your" or "ru" for "are you" etc., is confusing for many people, so please use full words.
- Focus on impact first, not intent. If something you communicate has a negative impact (hurts someone for example), try to understand the impact and change your behavior first, before communicating what your intent was. Curious about this idea? Read this **Scientific American blog post. (https://blogs.scientificamerican.com/psysociety/e2809cbut-i-didne28099t-mean-ite2809d-why-ite28099s-so-hard-to-prioritize-impacts-over-intents/)**