BIO 10: Introduction to Principles of Biology
Fall 2025 Course Syllabus

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.

Student Learning Outcomes

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.

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

1. Discuss relationships 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 Meeting Times:

- Lecture sessions meet every Monday and Wednesday from, 12:30-2:00 in Lark 2004.
- Lab sessions meet every Monday and Wednesday starting on Tuesday September 2nd.
    - Since I am teaching a double section, all 50 of you will attend the lecture at the same time, but half of you will have lab before lecture, and the other 25 of you will have lab after.
        - Morning lab folks (section 0873) 10am-12pm in Baker 1869
        - Afternoon lab folks (section 2102) 2pm-4pm in Baker 1869
            1. Not sure what section you're in?
                - Log into your Student Portal.
                - Click the Add/Drop/Register link.
                - Choose the current semester and you should now see your current schedule of classes, including section numbers
- **Final Exam**: Thursday December 18th, Time and Place TBD.

SRJC Counseling recommends that: "In addition to the time spent in class, a successful student must dedicate 2-3 hours/week of study time outside of class for every hour in class."

Instructor Contact

- Name: Dr. Renuka Sivapatham (you can call me Dr. Sivapatham or Dr. Renuka)
- Email me: rsivapatham@santarosa.edu
- Office hours: Thursdays at 4:00 -5:00 PM, Baker Hall Room 1824
    - please email me the day before so I know you're coming!
    - I'm also available by appointment, just contact me through email and we'll find a time that works for both of us.
- Response time: 99% of the time I will respond within 24 hours, Monday-Friday. If you do not hear back within 48 hours, please resend the message.

Announcements

I use Canvas Announcements for urgent and important messages, so it's strongly suggested that you set your Canvas notification preferences for Announcements to "Notify me right away." See these Canvas help resources for more information:

- Notification Preferences (Video)
- How do I add contact methods to receive Canvas notifications as a student?
- How do I set my Canvas notification preferences as a student?

Required Texts and Supplies

You can locate and order textbooks and other supplies online via the SRJC Bookstore. Textbook links below go to Amazon.

- Bio 10 Lab Manual
    - Purchase ASAP! Must be purchased from the bookstore no later than 9/1/2025
- Campbell Essential Biology with Physiology (4th, 5th, 6th or 7th edition). Used is fine, go with whatever fits your budget.
    - 4th edition ISBN: 978-0321772602
    - 5th edition ISBN: 978-0321967671
    - 6th edition ISBN: 978-0134711751
    - 7th edition ISBN: 978-0134765037
- Scantron form 882-E (100 question scantron form) x6
    - SRJC bookstore sells these individually and in packs of 6
    - these are the mid-sized ones the bookstore sells
- Scanner or smartphone with camera for submitting handwritten assignments

- Computer, tablet, or smartphone for accessing online course content
- Google Chrome web browser
    - Canvas was designed to work with Chrome, not Mozilla Firefox, Apple Safari, Microsoft Edge, etc. If you're having trouble with the website, it's probably your browser!
- PDF reader software (e.x. Adobe)
- Zoom account
    - your Zoom account name should match your name as shown in Canvas

Course Web Site

Students will use the Canvas course web site for assignment instructions, submitting assignments, sharing resources, and viewing grades.

Instructor Announcements

I will post announcements on the “Announcements” page in Canvas throughout the semester. Canvas notifies students according to their preferred Notification Preferences as soon as I create an Announcement. See the course Home page for info on how to adjust your personal Canvas notification settings.

Attendance

I expect you to attend all class sessions. Much of the learning that takes place in Bio 10 is through hands-on group exercises and discussions that cannot be "made up," and our educational community cannot fully develop when students are absent or isolate themselves in class. Each of you is an integral part of our learning community. We and your classmates value your questions and contributions to discussions, and your absence will affect not just your own learning, but the learning of others. As well, there is a strong correlation between the number of biology classes a student misses and their grade. For these reasons, attendance is mandatory and will observe the SRJC policy (p 22 of the SRJC College Catalog) that **students missing more than 10% of class time may be dropped from the course**. Note, per the SRJC College Catalog: "no instructor shall be required to make a distinction between excused and unexcused absences."

- The 10% total includes lecture and lab hours
- Students missing more than **4 labs** will result in a deduction of 10% points from the final grade (one letter grade)
- I will use Canvas to track student attendance and tardiness. This will factor into your participation grade, since you cannot participate if you are absent.

What if I miss class?

I am aware that students may have unavoidable conflicts and emergencies. If for some reason you cannot attend a class session, I expect you to contact me as far in advance as possible (or as soon after the absence as possible in unforeseen circumstances). If you do miss class, it is your responsibility to try to make up the material on your own before asking the me "What did I miss?" Rather, first make an effort to review slides or lab pages, and understand it on your own. Get to know one or two students who you could contact in the event that you miss class.. If after this you still have questions, then message me though canvas inbox or come by my office hours.

Laptops, cell phones, tablets, etc.

All electronic devices must be turned off and out of sight while taking exams. Failure to do so may result in a zero score on your exam. In addition, please refrain from using any electronic devices during class, with the exception of those used for note-taking purposes. **If excessive use of such devices becomes problematic during class, they may be prohibited entirely at my discretion.**

Withdrawing and Excused Withdrawal (W and EW)

You might decide that this course doesn't fit into your life this semester. If you do, know that I am not judging you. I know that you have priorities outside of this class. Before you withdraw, I encourage you to check in with me 1 on 1 to see if we can work together to help you prioritize your time in the course to succeed. I also encourage you to meet with a counselor to make sure withdrawing is the best option, and to discuss whether you are eligible for an excused withdrawal.

- A regular withdrawal will show up as a W on your transcript and will count towards your number of attempts in the course.
- An excused withdrawal will show up as an EW on your transcript w and will not count towards your number of attempts in the course.

Here is a link for scheduling a counseling meeting: Meet with a counselor.

No-show drop

If you do not sign into Canvas or if you do not attend the first two class meetings and I don't hear from you, I may drop you from the course to make space for waitlisted students. If you know you will miss sessions, communicate with me to avoid being dropped.
I expect you to take responsibility for your own enrollment - if you plan to withdraw make sure you do so by the posted deadlines. Do not rely on me to drop you from the course.

Academic Integrity

Academic dishonesty is regarded as any act of deception, benign or malicious in nature, in the completion of any academic exercise. Examples of academic dishonesty include cheating, plagiarism, impersonation, misrepresentation of idea or fact for the purpose of defrauding, use of unauthorized aids or devices, including advanced automated tools (artificial intelligence or machine learning tools such as ChatGPT or Dall-E 2), falsifying attendance records, violation of testing protocol, inappropriate course assignment collaboration (collusion), and any other acts that are prohibited by the instructor of record. Students determined to engage in academic dishonesty will receive a 0 on the assignment and an academic integrity report will be initiated, per SRJC 3.11P.

Present your own creative, original work: I trust you and believe that no student sets out to plagiarize (copy) the work of others. This can happen due to unbearable stress, mistake, or confusion about what counts as plagiarism.

Plagiarism is not just submitting someone else's paper as your own. It's taking sentences, even several-word phrases directly from another source or sources without proper attribution. You are a creative, intelligent, capable person and you can communicate in your own original way with your own words. If you're not doing original work, all the assigned work is really just busywork and is not a useful learning tool. Copy/paste is not worth your valuable time. I encourage students to share information and ideas, but not their work.

All work for this class must be original (in your own words) and completed individually (each student submits their own unique work) unless otherwise specified in the assignment details. Quotes, even if properly attributed, are not permitted in any assignment unless otherwise specified in the assignment details.

No credit will be earned for plagiarized assignments, quizzes, or exams.

My best advice for avoiding plagiarism is to always take notes in your own words, and never look at the original source while doing your work. If you're ever confused about whether you're writing in your own words or not, come to office hours or the writing center. We'd all love to help you!

To learn more, including specific examples, see these links on Plagiarism:
SRJC Writing Center Lessons on avoiding plagiarism
SRJC's policy on Academic Integrity

Accommodations

It is the mission of the Santa Rosa Junior College to support inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor as soon as possible. Students are also welcome to contact the Disability Resources Department (DRD). DRD is a resource for students that provides authorization for academic accommodations, training and access to assistive technology, and collaborates on strategies for academic success.

Students with disabilities who need or may need accommodations in this class are encouraged to contact Disability Resources (527-4278), 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 done so in previous classes.

Physical & Mental Health

Should you experience any physical or mental health issues, know that all of us at SRJC care about your well-being. SRJC's Student Health Services (SHS) has nurse practitioners and mental health therapists available. Confidential sessions are provided via secure Zoom or in-person. Sessions are free for SRJC students taking credit or non-credit classes, and some providers can converse with you in Spanish if you prefer. SHS also has on-site covid rapid testing and vaccinations available also at no cost. To start the process for any type of physical or mental health appointment contact Student Health at 707 527-4445 or email studenthealthservices@santarosa.edu. More information about all that Student Health Services provides is available at shs.santarosa.edu.

Additional resources for success

- Student Success Team – student coaches
- Tutorial Centers - free!
- Library resources - Librarians are available online. Go to "online chat" or "zoom appointments." Libraries are open in person this semester (check website for hours)
- Need A Laptop or other equipment? Borrow from SRJC Library
- Apply for Crisis Financial Assistance: Emergency grant application
- Accessing Online Student Services
- Basic Needs – Student Resource Center supports meeting student needs for food, housing, transportation, and much more

Grading scale

My Bio 10 classes have a total of 1000 points.

If taking Pass/No Pass you need at least 700 points to pass the course.

Grades are transferred directly from Canvas into the final grade system, so what shows in Canvas is accurate.

You can use the What If? grade function in Canvas to set specific goals on assignments - it will show you how your grade will change given an assignment grade you enter. Here is a link to learn about this tool: What If Grades in Canvas.

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

Types of Assessments: The course outline of record is the required organization of this course for any instructors that teach it. The % of your grade that comes from each category is part of the course outline of record. The following table illustrates which assignments and assessments fit into each required category. See the course outline of record for more information: Bio 10 COR

Course Outline Category	**Assignments & Assessments**	**% of your grade from that category**
lab reports or essays	1 science communication, 3 discussions	9
problem solving/homework and labs	labs, note taking, study guides	10
skill demonstrations	microscope quiz	3.5
exams lecture & lab	12 quizzes, 3 exams	74
other/participation	2 scientist spotlights, 3 self-assessments, surveys	3.5

Tentative List of Assessments

Assignment/assessment	Description	Points	% final grade
1 scientific project	Participation in semester-long scientific research and analysis of how it relates to class material	55	5.5
Discussions (7 points each)	Assignments with initial submission and subsequent group discussion: metacognitive development, misconceptions	35	3.5
Labs activities (5 points each)	Lab activities usually completed during lab period, but occasionally some groups will need to finish for homework	85	8.5
4 lecture/lab notes (3.75 points each)	Assigned to be note taker for 4 lectures over the semester, share notes with class in canvas discussion	15	1.5
1 microscope quiz	Skills demonstration of microscope use	35	3.5
12 quizzes (15 points each)	Most weeks there will be an closed-note multiple choice quiz on lecture/lab material taken at beginning of class	180	18
4 lecture midterm exams (85 points each)	Multiple choice and short answer, including drawing related to lecture material.	340	34
1 final exam (100 points)	Multiple choice assessment covering all topics in Bio 10	100	10
3 lab exams (40 points each)	Multiple choice and short answer, related to lab exercises.	120	12
2 scientist spotlight (5 points each)	350-word reflections on a scientist's life and/or research	10	1
3 self-assessments (5 points each)	Surveys taken after each unit about your study strategies and their effectiveness.	15	1.5
Welcome & exit surveys (5 points each)	Surveys to help me assess how I am doing on non-grade related metrics of student success and get to know students individually	10	1
totals:	----------	1000	100%

Due Dates, Late Policy, Missed Work

This course is set up so that you can learn from your mistakes by correcting work, and practice time management skills without fear of failure. You should plan on completing good work on time, but when your work does not meet the criteria, or when you fall behind, you will have the space to fix mistakes and catch up again.

All assignments are due on Sundays at 11:59pm. A deduction of 3% per day will occur for late assignments. To prevent any students from falling too far behind and to help me manage my own grading and preparation time, after a unit closes, I will not accept, give feedback on, or grade work from that unit.

Missing submissions will automatically be assigned a 0 in Canvas. This score will remain until graded by me at which point the new grade will overwrite the 0.

Missed In-Person Quizzes

In-person quizzes cannot be made up, however I will drop the lowest two quiz scores, so one or two missed quizzes will not affect your grade

Exam Make-up or Retakes

If you are not able to attend an exam session, let me know in advance and you may be able to take the exam early. I will not be able to arrange make-up exams for missed exams, as they require lab space, lab specimens, and lab equipment but I will work with the Disability Resources Department to ensure any accommodations requirements are met.

Falling Behind

We understand that people are not always able to control events that influence their lives. Accidents, illnesses, natural disasters, or other stressful events arise and can influence our ability to keep up with our responsibilities. If you completely miss one or two assignments, don't fret! There are many points in Biology 10 and a couple of missed quizzes or homework assignments are not likely to have a big impact on your grade. If however, life events interrupt your work in this class for a full week or more, please contact me as soon as possible so we can help you stay on track to succeed in the course. We want the best for you! Even if there is no specific event, but you are just feeling generally overwhelmed for a period of time, please reach out so we can make a plan for you to meet your goals. Don’t suffer in silence.

Extra Credit

You have the option to earn up to 20 extra credit. Extra credit assignments will be announced on the course website and/or during class.

Important Dates

Monday, August 18, 2025	**CLASSES BEGIN**
Sunday, August 24, 2025	Last day to register/add semester length class without instructor's signature or add code
Sunday, August 31, 2025	Last day to drop semester length class and be eligible for a refund
Sunday, September 7, 2025	Last day to register/add semester length class with the instructor's signature or add code
Sunday, September 7, 2025	Last day to drop a semester length class without "W" symbol
Tuesday, November 11, 2025	**Veterans Day Holiday (No classes, District closed)**
Sunday, November 16, 2025	Last day to drop a semester length class with "W" symbol
Thursday, November 27 - Sunday, November 30, 2025	**Fall Break (No classes, District closed)**
Friday, December 12, 2025	Last day to opt for P/NP for a semester length class
Saturday, December 13 - Friday, December 19, 2025	Final Examinations