

BIOLOGY 10: PRINCIPLES OF BIOLOGY

COURSE SYLLABUS SUMMER 2020, SECTION 8327

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:

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.

Lecture: Online
MTWTh anytime

Lab: Online
MW anytime

Instructor: B. Joy Erickson McNally, Ph.D.
Email: bericksonmcnally@santarosa.edu
Office: 1869A Baker Hall

Zoom Office Hours:
TBD or by appointment

Course Website: <https://canvas.santarosa.edu>

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

[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:

Bio 10 Lab Manual (Revised F18)

Campbell Essential Biology with Physiology (4th, 5th, or 6th edition)

4th edition ISBN: 9780321772602

5th edition ISBN: 9780321967671

6th edition ISBN: 9780134711751s

Simple calculator

Computer with webcam and microphone

Scanner or smartphone with camera for submitting handwritten assignments

Other resources TBD

Required Software: You will need a PDF Reader for this course (e.x. [Adobe Reader](#)). Google's [Chrome](#) internet browser is required for Proctorio (see below). Others TBD.

Important Dates:

Day Class Begins: 6/15/2020

Day Class Ends: 8/6/2020

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.

Pass-No Pass (P/NP): You may take this class P/NP. You must decide before the deadline, and add the option online or file the P/NP form with Admissions and Records. With a grade of C or better, you will get P.

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.

Attendance: Students who fail to attend the first class (face-to-face courses) or do not log-in to an online class within the first 24 hours 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.

Late Policy: All assignments are due on the due date. A late submission will receive a 10% penalty per day. Submissions more than one week late are not accepted without prior arrangement.

Exams: There will be midterm and final exams. The material comes from the textbook, class lectures and labs, as well as supplemental materials. If any exam is missed, a zero will be recorded as the score.

Grading Policy: Visit the “Grades” page in Canvas to keep track of your grades.

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 to complete the final exam to pass 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](#).

Collaborating on or copying of tests 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. See these links on Plagiarism: [SRJC Writing Center Lessons on avoiding plagiarism](#) and [SRJC's policy on Academic Integrity](#).

Student Responsibilities:

1. Conduct yourself in a manner that encourages mutual respect, honorable behavior, and learning, thereby promoting student success and discouraging academic dishonesty.
2. Learn and understand the course requirements, grading procedures, and rules and expectations for acceptable conduct and behavior in each of your classes, including definitions of plagiarism and the ethical use of technology.

3. Learn and understand [SRJC policy \(3.11\)](#) on Academic Integrity and the Student Conduct Code, which is in the SRJC catalog and part of Policy 8.2.8, Student Discipline and how these policies will be applied in your classes.
4. Learn and understand your rights to due process should you wish to contest an allegation or penalty made by an instructor or other representative of the college.

Online Proctoring of Exams: To ensure the academic integrity and fairness of exams and grades, this course is using an online exam proctoring system called Proctorio. This system takes video and sound recordings during the exam and interprets these to get a sense for the user's academic integrity. For example, the system has the capability to note to the instructor if other people are in the room, if a phone is used, or if the student is consistently looking down into their lap. These are just a few metrics the systems uses. In order to take your exams via the online proctoring service, you must have access to a computer equipped with a functioning video camera, microphone and speaker system. During the exams, you must also have an isolated environment with an Internet connection (wired connect always preferred but a strong, reliable Wi-Fi is OK). Any loss of network connectivity and the exam will end automatically, please make sure your current connection is stable during the entire exam. You will not be allowed to print the exam.

To insure exam integrity, during the exam period, Proctorio will lock down a number of your computer's capabilities, including locking down your browser and disabling new internet tabs, disabling printing, disabling the clipboard, disabling the right click feature on the mouse (to prevent copying and pasting activities), forces full screen in the browser window to prevent the exam participant from accessing outside programs, and clears memory cache of temporary internet files to prevent retention and redistribution of exam materials.

Furthermore, during the exam period, Proctorio will collect a variety of information including:

- Your IP address
- Recordings from your microphone
- Video from your computer's webcam
- Your mouse location
- Your browser size
- Your open browser tabs and windows
- Your eye, mouth, and head movements
- Any other applications running
- Number of display screens connected

Information collected may be reported to the instructor as "suspicious" activity, which may result in academic policy violations. Rest assured the program itself does not determine if academic dishonesty has occurred or not. That determination rest solely with your instructor. Furthermore, although the system is recording a number of metrics, no one is actually watching you during the exam period, all information is simply recorded, encrypted, and only accessed by your instructor should suspicious activity be flagged (e.g. system indicates phone present at minute 15:23).

Please note: You are not required to take this exam in any specific location, such as your home or other place you consider to be private. Please feel free to take the exam at a location other than your home

(e.g., computer lab, a library), but strive for a quiet location with minimal disturbances and disruptions.

Disability Accommodations: Proctorio is VPAT certified, 508 compliant, and fully accessible to those with special needs. However, the software captures eye, head, and mouth movements, talking to self, pacing, and may flag the use of a screen reader or other devices which may be reported as “suspicious”. If you are a student with a disability that may manifest in these activities and/or you require accommodations, which include any of these activities, please contact your Instructor.

COURSE POLICIES:

Lecture and lab attendance and participation: Lecture and lab attendance and participation will be monitored via the course website and completion of any related assignments, quizzes, and discussions. Lectures and labs open at 12:00 AM on the dates indicated on the course schedule (see below). Any assignments are due within the next 48 hours. Late assignments will be docked 10% per day and assignments close completely 7 days after they open. There are no makeups for missed lecture and lab assignments, however your lowest 3 scores for each will be dropped.

Exams: There are NO makeup exams. Exam dates are on the course schedule and exam times will be scheduled ASAP. Unless arranged through DRD, students will have 110 minutes to complete exams. Students arriving late to an exam will not be given additional time. An unexcused absence during an exam or quiz will result in a zero score. Some exams are lecture or lab only, others are hybrid exams that cover overlapping topics from both lecture and lab. Traditionally (i.e. for in person Bio 10 classes), lecture exams are primarily multiple choice and lab exams are primarily short answer. Hybrid exams will be a combination of these two formats. Exams are CLOSED NOTE. You are not permitted to use any outside sources (notes, textbook, internet, etc.) during exams. Use of these during an exam is a violation of the student code of conduct and may result in removal from the course and/or a failing grade.

Note! Anyone missing the FINAL EXAM (for any reason) may fail regardless of previous scores.

Exam Review: Once graded, scores will be posted to the course website and your exams will be available for review during the semester. After each exam is graded, you have one week to hand in any rebuttals, in writing (i.e. via email), 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. After that time, exams will no longer be available for review.

Laptops, cell phones, tablets, etc: Because this is an online course, you will need access to one or more of these to complete and submit assignments. While I am happy to help, you are responsible for knowing how to operate your technological devices. A computer with a webcam and microphone is REQUIRED for this course. Laptops are available for loan from SRJC using this form: [SRJC Student Laptop Loan Form](#). **All electronic devices other than your computer must be turned off and out of sight while taking exams. Failure to do so may result in a zero score on your exam.**

TENTATIVE CLASS SCHEDULE

WEEK	DATE MTWTH	#	LECTURE TOPIC(S)	TEXT CHAPTER(S)	LAB TOPIC(S) M & W
1	6/15	1	Welcome & Intro to Biology	Ch 1	Lab 1: Biological Concepts
	6/16	2	Essential Chemistry	Ch 2	
	6/17	3	Molecules of Life	Ch 3	Lab 2: Water
	6/18	4	Intro to Cells & Microscopy	Ch 4	
2	6/22	5	Cell Structure & Function	Ch 4	Exam I: Lectures 1-3 / Labs 1-2
	6/23	6	Cellular Energy & Enzymes	Ch 5	
	6/24	7	Cellular Respiration	Ch 6	Lab 3: Enzymes
	6/25	8	Photosynthesis	Ch 7	
3	6/29	9	Cell Reproduction	Ch 8	Lab 4: Cells / Microscopes
	6/30	10	Mendelian Genetics	Ch 9	
	7/1		Exam II: Lectures 4-8 / Labs 3-4		Lab 5: Mitosis
	7/2		<i>Independence Day Observed – No Class</i>		
4	7/6	11	Post-Mendelian Genetics	Ch 9	Lab 6: Meiosis
	7/7	12	DNA Replication & Protein Synthesis	Ch 10	
	7/8	13	Intro to Evolution	Ch 13	Lab 7: Genetics
	7/9	14	Microevolution	Ch 13	
5	7/13		Exam III: Lectures 9-12 / Labs 5-7		No lab
	7/14	15	Macroevolution	Ch 14	
	7/15	16	Plant Tissues and Function	Ch 28	Handout: Evolution
	7/16	17	Plant Nutrition	Ch 29	
6	7/20		Exam IV: Lectures 13-15 / Evolution Lab		Lab 8: Protists
	7/21	18	Animal Diversity	Ch 17	
	7/22	19	Animal Nutrition / Gas Exchange	Ch 22	Lab 9: Plants
	7/23	20	Human Digestion / Circulation	Ch 23	
7	7/27		Exam V: Lectures 16-20		Lab 10: Fungi
	7/28	21	Climate & Biomes	Ch 18	
	7/29	22	Terrestrial & Aquatic Biomes	Ch 18	Lab 11: Animals
	7/30	23	Ecosystems	Ch 20	
8	8/3	24	Community Structure	Ch 20	Exam VI: Labs 8- 11
	8/4	25	Community Dynamics	Ch 20	
	8/5	26	Population Ecology	Ch 19	No lab
	8/6		Final Exam: Lectures 21-26		

IN CASE OF EMERGENCY:

The normal in-person course emergency policies don't really apply (e.x. where to go in the event of an earthquake). However, if you have any personal emergencies (or we experience PG&E shut offs) they can / will be addressed as they come up.

GRADING

GRADE ITEM	TOPIC / FREQUENCY	EACH	TOTAL / %
Exams	Exam I: Scientific Method, Water, Chemistry	110 points	770 points / 77%
	Exam II: Cell Biology & Enzymes	110 points	
	Exam III: Genetics	110 points	
	Exam IV: Evolution	110 points	
	Exam V: Physiology	110 points	
	Exam VI: Protists, Fungi, Plants, Animals	110 points	
	Exam VII: Ecology	110 points	
Lecture Review Quizzes	1 per lecture	4 points	100 points / 10%
Lecture Participation	Chapter Summaries & In-lecture Quizzes	varies	50 points / 5%
Lab Participation	Pre-labs & Lab Discussions	varies	50 points / 5%
Other	Classification & Taxonomy Homework	10 points	30 points / 3%
	Bio News Assignment	10 points	
	Online Meeting with Instructor (x2)	5 points	
[Optional Extra Credit]	[TBD]	[varies]	[20 points / 2%]
COURSE TOTAL			1000 points / 100%

ASSIGNMENTS:

Textbook reading is required. It will reinforce lectures and help you keep up with the pace of the class.

Lecture Review Quizzes: (e.x. Lecture 1 Review Quiz) occur at the end of each lecture module. Review quizzes have 4 multiple choice questions and you have 6 minutes to complete the quiz. You also have two attempts to take the quiz and only your highest score will be recorded. Further, your lowest 3 quiz scores will be dropped and not included in the calculation of your final grade.

Lecture participation is based on completion and submission of pre-lecture assignments as well as in-lecture quizzes (e.x. Quiz 1.2). Each lecture participation assignment/quiz is worth the same amount and your lowest 3 scores will be dropped before your final course grade is calculated.

Lecture participation is based on completion and submission of pre-lab assignments as well as in-lab assignments and discussion. Each lab participation assignment is worth the same amount and your lowest 3 scores will be dropped before your final course grade is calculated.

Extra Credit Opportunities: You have the option to earn up to 20 points of extra credit. Extra credit assignments will be announced on the course website. While extra credit points can have a minimal affect on your final course grade, your time is always better spent studying for exams!

Classification and taxonomy homework is an assignment that is part of your lab manual. Its due date and format will be announced on the course website.

Bio News Assignment: is a written assignment that will ask you to find and assess the validity of a biology-related news article from the media. The details of this assignment including its due date will be outlined on the course website.

Online Meeting with Instructor: because this course is online and therefore inherently impersonal, you will be required to schedule and participate in two online Zoom meetings with your instructor and a few (4-6) of your fellow students. The purpose is just to get to know each other a little bit and answer any questions you have about the course or its content. We will schedule the first meeting by Week 2 of the course and the second meeting by Week 6.