Biology 10: Introduction to Biology
Spring 2022

Instructor: Dr. Linda McPheron
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Course Description: Introductory course in biology including: scientific method, ecology, biodiversity, physiology and anatomy, chemistry of life, cell and molecular biology, genetics, and evolution.

Required Text:
Campbell Biology, Concepts and Connections. 9th ed. Taylor, Martha and Simon, Eric and Dickey Jean. Pearson. 2018; earlier editions are also ok.
Or, Concepts of Biology. Fowler, Samantha and Roush, Rebecca and Wise, James. OpenStax. 2016; https://openstax.org/details/books/concepts-biology
And, Biology 10 lab manual

Class: Lecture Tues & Thurs: 5:30 – 7:00, 1809 Baker Hall
Lab: Tues / Thurs 7:00 – 10:00, 1869 Baker Hall
Office hours: Thur. 5:00 – 5:30 pm or by appt.

Lecture

Exams (100 pts x 3); Final 150 pts	450 points
Lab Exams (75 pts x 3)	225 points
Labs (15 pts x 13; 1 dropped)	180 points
In-class assignments	50 points
Writing assignments (30 pts x 2)	60 points
Discussion Posts (15 pts each)	60 points
Total	**1025 points**

Exams: Exams must be taken on the assigned day. If you take an exam late there will be a point deduction. You must notify me in advance if you know you will miss a quiz.

Discussion Posts: Discussions will involve questions about the material you learned in class. They will be graded based on content covered, completeness and accuracy. You will also need to reply to 2 students and comment on their responses. All answers must be in your own words.

Class policies: Attendance is required and participation in discussions is expected. In-class assignments are done during class time and will be turned in at the end of class. They may not be turned in late. You are responsible for any material missed in class, and you will want to complete all missed assignments and labs.

Late assignment policy: If assignments are turned in late there will be a deduction from the score. The later the assignment is, the more points will be deducted. AFTER the Exam occurs for that Module, assignments for that Module will not be accepted (will be worth 0).

Plagiarism: "Plagiarism is defined as the unauthorized use of the language and thought of another author and representing them as your own," according to the college policy. Plagiarism is a violation of the rules of student conduct, and discipline may include, but is not limited to, a failing grade on this assignment or an F in the course. Plagiarism is when you use 5 words in a row from your source. Sources need to be cited for Discussion Posts.

Course Outline

Week	Date	Lecture	Readings	Laboratory	Online Homework
		Module 1: Molecules of Life & Nutrition			
0	Th 1/20	Intro to Biology 10	-	*no lab*	
1	T 1/25	The Process of Science	1	*Concepts*	
	Th 1/27	The Process of Science	1	*Concepts*	
2	T 2/1	The Chemistry of Life	2	*Water*	**Disc. Post 1** (Intro)
	Th 2/3	Organic Molecules	3	*Water*	
3	T 2/8	Organic Molecules	3	*Enzymes*	
	Th 2/10	**Exam 1**		*Enzymes*	
		Module 2: Cells, Bacteria, Viruses and Cell Growth			
4	T 2/15	Cells / Bacteria / Viruses	4, 5	Microscope / Cells	
	Th 2/17	***holiday***		***holiday***	
5	T 2/22	Cells / Bacteria / Viruses	4, 5	Microscope / Cells	
	Th 2/24	Origin of Life / Domains	-	Microscope / Cells	**Writing 1** (Stem Cell Research)
6	T 3/1	Diseases & Immune System	24	***Lab Exam 1***	
	Th 3/3	Cell Growth & Cancer	8	***Lab Exam 1***	
7	T 3/8	Cell Growth & Cancer	8	*Mitosis*	
	Th 3/10	Mitosis / Meiosis	8	*Mitosis*	
8	T 3/15	Cellular Respiration / Energy	6	*Meiosis*	**Disc. Post 2** (cells)
	Th 3/17	**Exam 2**		*Meiosis*	
9	T 3/22	***Spring Break***		***Spring Break***	
	Th 3/24	***Spring Break***		***Spring Break***	
		Module 3: Genetics & Evolution			
10	T 3/29	DNA / Protein Synthesis	10	*Genetics*	
	Th 3/31	Patterns of Inheritance	9	*Genetics*	

11	T 4/5	Evolution / Natural Selection	13	*Evolution*	**Disc. Post 3** (genetics)
	Th 4/7	Evolution / Speciation	13	*Evolution*	
12	T 4/12	Evolution	13	***Lab Exam 2***	
	Th 4/14	Gene Regulation / Genetic Engineering	11	***Lab Exam 2***	**Writing 2** (Gene Therapy)
13	T 4/19	Genetic Engineering	12	*Protists / Pond Water*	
	Th 4/21	**Exam 3**		*Protists / Pond Water*	
		Module 4: Evolution of Plants, Fungi & Animals / Ecology			
14	T 4/26	Evolution of Plant Groups	13	*Plants*	
	Th 4/28	Plants / Photosynthesis	17	*Plants*	
15	T 5/3	Evolution of Animal Groups	18	*Animals*	
	Th 5/5	Animals / Classification	18	*Animals*	
16	T 5/10	Fungi	17	*Fungi*	**Disc. Post 4** (Evolution)
	Th 5/12	Basic Ecology	37	*Fungi*	
17	T 5/17	Population Growth / Ecosystems	36	***Lab Exam 3***	
	Th 5/19	Ecosystems / Climate Change	37	***Lab Exam 3***	
18	T 5/24	**Exam 4**		*no lab*	

** readings are for the 9th edition of Campbell Biology, Concepts and Connections*

Disability Services:

If services are needed, please go to: https://drd.santarosa.edu/
To meet with a Specialist about disability services, how to apply for services, obtain verification, or any other disability related questions, please call **(707) 527-4278** or **(707) 778-2491**, or email us at disabilityinfo@santarosa.edu.

Link to Course Description:
https://portal.santarosa.edu/srweb/SR_CourseOutlines.aspx?CVID=7860&Semester=19817

Student Resources:
For other resources you need as a student at SRJC, please go to: https://resources.santarosa.edu/

Tutorial Services:
https://college-skills.santarosa.edu/srjc-tutorial-centers

Writing Center:
https://english.santarosa.edu/writing-center

Add/Drop Deadlines for Spring semester:

Jan. 30: Last day to drop without paying tuition
Feb. 6: Last day to add with permission #
Feb. 6: Last day to drop class with refund and without "W"
Feb. 27: Last day to file for pass/no pass
Apr. 24: Last day to drop class with a "W"

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.