

Biology 10 - Introduction to the Principles of Biology

Spring 2018

Welcome to Bio 10!

Lecture: Tuesday and Thursday
5:30 - 7:00pm

Room: PC 657 Call, Petaluma Campus

Lab: Tuesday: 7:00 – 10:00pm **or**
Thursday: 7:00 – 10:00pm

Room: PC 313

Instructor: Renate Eberl, Ph.D.

Office: PC 680 Call, Petaluma Campus

email: reberl@santarosa.edu

Office Hours: T/Th 4:20 – 5:20 pm or by appointment. Please come to office hours, I'm here to help!

Important Dates:

February 4, 2018	Last day to add the class without instructor signature
February 4, 2018	Last day to drop a class without a W symbol
February 25, 2018	Last day to opt for pass/no pass instead of grade
April 22, 2018	Last day to drop a class with a W symbol

Course Description: This is an introductory lecture and laboratory course for biology majors and non-majors. The course will cover the key concepts and vocabulary in: scientific method, ecology, biodiversity, physiology and anatomy, chemistry of life, cell and molecular biology, genetics, and evolution. The official course outline of record may be found here:

https://portal.santarosa.edu/SRweb/SR_CourseOutlines.aspx?CVID=23972&Semester=20137. If you have concerns about your ability to be successful in this class, or have tried and failed Bio 10 in the past, please consider taking Biology 100 first; it is very helpful and it's not too late to switch! See me for details.

Texts: Campbell Essential Biology with Physiology with Mastering Biology access 5th edition
Biology 10 Laboratory Manual (Petaluma Campus version)

Our textbook is available in our library at the reserves desk with call number: [QH308.2 .C344 2016](#)

Grading: Your grade will be based on your total number of points as compared to the total number of points available for the entire semester. The following is an approximate break down of the points:

	<u>Each</u>	<u>Total</u>
3 Lecture Exams	100	300
3 Lab Exams	100	300
3 Lab Assignments	10	30
Lab notebook		20
Mastering Biology Homework	10	160
Clicker Questions	1	140
<u>1 Cumulative Final Exam</u>	<u>150</u>	<u>150</u>
Total		1100 points

A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; F = <60%

Time Commitment: For all college classes you are expected to complete approximately 2-3 hours per week outside of class for every 1 hour spent in lecture. For Bio 10, that is approximately **9 hours of study time EVERY WEEK**. Depending on your level of preparation that may or may not be enough time for you to earn the grade you want.

Homework: You are expected to read the text assignment for both lecture and lab each week before class. In addition, you will have **weekly online homework assignments in Mastering Biology** associated with your textbook that you will access via **MyLab and Mastering** on the course website in Canvas. Using the access code that comes with your textbook, you will register for mastering biology within our course Canvas site. **DO NOT** register for mastering biology online outside of Canvas! If you do not have an access code, you will be invited to purchase one during registration in Canvas. Please note: **you must use your name as you are registered at the JC, no nicknames and use only the last 4 digits or your student ID.** You are able to access Canvas and Mastering Biology from computers in the school computer lab or the library. **Therefore, computer problems are not an excuse for late homework.** You may turn in late homework for reduced credit. Late homework is penalized 10% for each day late. In addition, there is a “study area” section with lots of excellent study resources – I recommend that you use these on a weekly basis.

Clicker questions: You will be assigned an iClicker from the class set that you will be using throughout the semester to answer questions. You will register your assigned iClicker within Canvas. Clicker questions are designed to give students and the instructor immediate feedback about your understanding of the material covered in class. You will earn points by answering clicker questions during lecture. You will earn half of these points for participation and the other half for providing the correct answer. I also use this for attendance. **You cannot make up clicker points if you are absent.**

Attendance: If a student misses more than two class sessions, please be aware that on the third absence, s/he may be dropped from the class; however, this is not a guarantee that a student will be dropped. **Students who choose not to continue the course are responsible for turning in a drop card to the admissions office or online. Failure to officially drop the course may result in an "F".** If you miss work after the deadline to drop and have an acceptable reason (like hospitalization), an "Incomplete" may be more appropriate. When in doubt, ask.

Labs: The lab is an integral part of this course. You are expected to read both the lab manual assignment and the text reading assignment prior to coming to lab. Please bring your entire lab manual to each lab; we sometimes need other sections other than the current week. I will periodically check your lab manual for completeness. Your textbook is not required for lab, but can occasionally be helpful. If you miss a lab it is sometimes possible to attend one of my other lab sections for that week, otherwise, you will not be able to make up the assignment for that lab. Please talk to me before attending another section.

Lab Safety: Safety protocols will be explained in lab on the first day. Failure to follow safety procedures or mishandling of laboratory equipment will result in suspension of up to two lab periods.

Lab Staff and Assistance: We have two great resources for extra help in the biology lab. Our Science Lab Coordinator, Dr. Scott Lorbeer (slorbeer@santarosa.edu), will have lab study sessions most Fridays from 1-2 in the lab (more info to come in lab). Our Science Lab Instructional Assistant, Danielle DeFever (ddefever@santarosa.edu), will have longer review sessions on Fridays before lab exams. She also has a website: <https://profiles.santarosa.edu/danielle-defever> where she provides study and review materials for the lab. Please take advantage of these great resources.

Exams: Exams will typically be a combination of multiple choice questions, short answers and essay questions. You will need a standard Scantron form for every exam.

You may make-up an exam only under extraordinary circumstances. You must contact the instructor with your request **before** the exam begins. **Instructor approval and written verification (such as a doctor's note) is required. You must take the final to pass the class. If you are too sick to take the final you may request an incomplete.**

Exam Review:

It is the policy of the Life Sciences Department to not return exams to students. Once graded, your exams will be filed in my office 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. After that time exams will be shredded.

Cheating: I expect students to comply with universal guidelines of academic integrity. This refers to cheating on exams as well as plagiarism (copying the work of others and turning it in as your own). All parties involved in cheating or plagiarism will be given a zero for that assignment and may be suspended from class for two class periods. You may not wear headphones or use or look at any electronic device (including cell phones) during exams; doing so will be deemed cheating and you will receive zero points for the exam and be reported to the Dean. Details of the student code of conduct can be found here: http://www.santarosa.edu/for_students/rules-regulations/scs/section1.shtml

Classroom Etiquette: All students shall comply with the standards of conduct for the college. If a student disrupts the learning environment in any way, the student will be asked to leave the class for two class meetings and will be subject to further disciplinary action. Please silence your cell phones before coming into class. If you wish to use a laptop to take notes do not use the web or other programs in class. This is disruptive to students around you. If you use your laptop in this way you will lose the option of using your laptop in class.

Emergency Evacuation Plan:

In the event of an emergency during class that requires evacuation of the building, please leave the class immediately, but calmly. We will meet in the parking lot. I will take roll to make sure everyone got out safely so please check in with me immediately. If you are a student with a disability who may need assistance in an evacuation, please see me during my office hours as soon as possible so we can discuss an evacuation plan.

Accommodations for Students with Disabilities:

If you need disability related accommodations for this class, such as a note taker, test taking services, special furniture, use of service animal, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to me as soon as possible. You may also speak with me privately during office hours about your accommodations. If you have not received authorization from DRD, it is recommended that you contact them directly (778-2491), as soon as possible to better ensure such accommodations are implemented in a timely fashion.

Tentative Lecture Schedule

Week	Dates	Lecture topics	Reading Assignment	Mastering Biology Homework
1	1/18	How Science Works / Intro to Biology	Chapter 1	Intro to Mastering
2	1/23, 1/25	Chemistry	Chapters 2 and 3	HW 1
3	1/30, 2/1	Cells	Chapters 3 and 4	HW 2
4	2/6, 2/8	Cells Th 2/8: Lecture Exam 1	Chapter 5	HW 3
5	2/13, 2/15	Cellular Respiration 2/15 no class	Chapter 6	HW 4
6	2/20, 2/22	Photosynthesis and Cellular Respiration	Chapters 6 and 7	HW 5
7	2/27, 3/1	Cellular Reproduction, Cancer	Chapters 8. Chapter 11, pp. 209-213	HW 6
8	3/6, 3/8	DNA structure and function,	Chapter 10	HW 7
9	3/13, 3/15	Inheritance Th 3/15: Lecture Exam 2	Chapter 9	HW 8
10	3/20, 3/22	No class, Spring Break		
11	3/27, 3/29	Evolution	Chapter 13	HW 9
12	4/3, 4/5	Evolution, Ecology (populations)	Chapters 14 & 19	HW 10
13	4/10, 4/12	Ecology (Community - Ecosystems)	Chapters 19 & 20	HW 11
14	4/17, 4/19	Nutrient Cycles, Human Impacts	Chapter 20, Chapter 18 (pp. 394-399),	HW 12
15	4/24, 4/26	Tu 4/24 Lecture exam 3 Plants	Chapter 16	HW 13
16	5/1, 5/3	Plants, Animal Evolution and Diversity	Chapter 28, Chapter 29, Chapter 17, pp. 338- 356	HW 14
17	5/8, 5/10	Animal Form and Function, Digestive System	Chapters 21& 22	HW 15
18	5/15, 5/17	Animal Gas Exchange and Circulation	Chapter 23	HW 16
19	5/22	Tuesday 4:00 – 6:45 Final Exam		

Lab Schedule

Week	Dates	Laboratory topic	Text Reading Assignment*
1	TH 1/18	Biological discovery and Study skills (Sec 4458)	
2	1/23, 1/25	Biological Concepts	Chapter 1
3	1/30, 2/1	Water	Chapter 2, Chapter 5 (Osmosis section)
4	2/6, 2/8	Enzymes	Pages 80-82
5	TU 2/13	Biological discovery and Study skills (Sec 6305)	
6	2/20, 2/22	LAB EXAM 1	
7	2/27, 3/1	Microscopes Cell	Chapters 4, 5
8	3/6, 3/8	Mitosis, microscope proficiency (10 points)	Chapter 8, pp. 123-128
9	3/13, 3/15	Meiosis, Genetics	Chapter 8, pp. 130-134 Chapter 9
10	3/20, 3/22	SPRINGBREAK	
11	3/27, 3/29	Lab Exam 2	
12	4/3, 4/5	GMO part 1 Genetics (10 points)	Chapter 12 Chapter 9
13	4/10, 4/12	GMO part 2 Evolution	Chapter 12 Chapter 13
14	4/17, 4/19	Protists and Pond Water (10 points)	Chapter 15, pp. 307-313
15	4/24, 4/26	Fungi	Chapter 16, pp. 328 - 332
16	5/1, 5/3	Plants	Chapter 16, pp. 316-326, Chapter 28. Chapter 29, pp. 628-630
17	5/8, 5/10	Animals	Chapter 17, pp. 340-355, & Chapters 21-23
18	5/15, 5/17	Lab Exam 3	

*** These reading assignments from the textbook focus on material covered in lab and are in addition to the expectation that you read the lab manual each week before you come to lab.**