

# Biology 10 - Introduction to the Principles of Biology

## Spring 2017

### *Welcome to Bio 10!*

**Lecture:** Monday and Wednesday  
5:30 - 7:00pm  
Room: 2004 Lark Hall

**Lab:** Monday 7:00 – 10:00pm **or**  
Wednesday 7:00 – 10:00pm  
Room: 1869 Baker Hall

**Instructor:** Renate Eberl, Ph.D.

Office: 1812 Baker Hall

email: [reberl@santarosa.edu](mailto:reberl@santarosa.edu)

**Office Hours:** M/W 4:25 – 5:25 pm

**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](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.

**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.

**Texts:** Campbell Essential Biology with Physiology with Mastering Biology access 5<sup>th</sup> edition  
Biology 10 Laboratory Manual  
iClicker – you will need to purchase an iClicker to participate in class

**Mastering Biology:** You will be completing most of your **homework assignments at the Mastering Biology website** associated with your textbook. The website lists the assignments and the due dates. If your textbook does not come with an access code you can buy access online when you register on the website. In addition, there is a “study area” section with lots of excellent study resources – I recommend that you use these on a weekly basis.

Register at <http://www.masteringbiology.com/> using the course title: **BIO10 EBERL SP17** and the course ID **EBERLSPRING17**. **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 will be able to access this website and complete your homework 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.**

**iClickers:** 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

so if you forget your iClicker please tell me so I can note your attendance. **You cannot make up clicker points if you are absent or forget your clicker.**

**How to register your iClicker:** You will need to use your clicker in class at least once before you can register it. After you have used it in class please go to [www.iclicker.com/registration](http://www.iclicker.com/registration) to register. **Be sure to use your name as you are registered at the JC, no nicknames and use only the last 4 digits or your student ID.** You must have your clicker registered by the end of the second week of classes. If this will be a problem please let me know.

**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.

**Exams:** You may make-up an exam only under very 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.**

**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. 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. If you have more than three lab absences you may be dropped from the course and you will not earn an A in the course, regardless of other points accumulated.

**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.

**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>
4 Lecture Exams	100	400
3 Lab Exams	100	300
4 Lab Assignments	10	40
Mastering Biology Homework	10	160
Clicker Questions	1	140
1 Cumulative Final Exam	200	200
<b>Total</b>		<b>1240 points</b>

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

**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](http://www.santarosa.edu/for_students/rules-regulations/scs/section1.shtml)

### **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.

**Classroom Etiquette:** All students shall comply with the standards of conduct for the college. If a student disrupts the learning environment in any way, s/he will be asked to leave the class for two class meetings and will be subject to further disciplinary action. **Please turn off all 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. Everyone using a computer to take notes must sit in the back row of the class to minimize disruption.

### **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 HW
1	1/18	How Science Works and an 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	Chemistry and Cells	Chapters 3 and 4	HW 2
4	2/6, 2/8	Cells Continued Cellular respiration	Chapters 5 and 6	HW 3
5	2/13, 2/15	Cell Respiration continued <b>Wed 2/15: Lecture Exam 1</b>		HW 4
6	<b>2/20 no class</b> 2/22	Photosynthesis and Cell Respiration	Chapters 6 and 7	HW 5
7	2/27, 3/1	DNA structure and function	Chapter 10	HW 6
8	3/6, 3/8	Mitosis and Cancer; Meiosis	Chapter 8 and 11 (pages on cancer)	HW 7
9	3/13, 3/15	Mon: Inheritance <b>Wed 3/15: Lecture Exam 2</b>	Chapter 9	HW 8
10	<b>3/20, 3/26</b>	<b>Spring Break!</b>		
11	3/27, 3/29	Inheritance and Evolution	Chapters 9 & 13	HW 9
12	4/3, 4/5	Evolution	Chapters 13 & 14	HW 10
13	4/10, 4/12	Ecology: Populations, Community Biology and Food Webs	Chapters 19 & 20	HW 11
14	4/17, 4/19	<b>Mon 4/17: Lecture Exam 3</b> Wed: Nutrient Cycles, Human Impacts	Chapter 20	HW 12
15	4/24, 4/26	More Nutrient Cycles and Human Impacts; Plants	Chapter 20 & 28	HW 13
16	5/1, 5/3	Plants and Animal Homeostasis	Chapters 29 & 31	HW 14
17	5/8, 5/10	<b>Mon 5/8: Lecture Exam 4</b> Wed: Digestion	Chapters 21 & 22	HW 15
18	5/15, 5/17	Animal Gas Exchange and Circulation	Chapter 23	HW 16
19	<b>5/22</b>	<b>Final Exam: Monday 4:00 – 6:45</b>		<b>No Homework</b>

## Lab Schedule

Week	Dates	Laboratory topic	Text Reading Assignment
1	1/18	No Lab	
2	1/23, 1/25	Biological Concepts	Chapter 1
3	1/30, 2/1	Water	Chapter 2
4	2/6, 2/8	Enzymes	Pages 80-82
5	2/13, 2/15	Microscopes Cell	Chapters 4, 5
6	<b>2/20 no class</b> 2/22	No Lab	<u>2/24 Lab Exam Review</u>
7	2/27, 3/1	<b>Lab Exam 1</b>	
8	3/6, 3/8	Mitosis, microscope quiz (10 points)	Chapter 8
9	3/13, 3/15	Meiosis	Chapter 8
10	<b>3/20, 3/26</b>	<b>Spring Break</b>	
11	3/27, 3/29	Genetics (10 points)	Chapter 9
12	4/3, 4/5	Evolution (10 points)	Chapter 13 <u>4/7 - Lab Exam Review</u>
13	4/10, 4/12	<b>Lab Exam 2</b>	
14	4/17, 4/19	Protists and Pond Water (10 points)	Pages 306-311
15	4/24, 4/26	Plants	Pages 316-326, Chapter 28
16	5/1, 5/3	Fungi	Pages 328 - 332
17	5/8, 5/10	Animals	Pages 340-360, & Chapters 21-23 <u>5/ 12 - Lab Exam Review</u>
18	5/15, 5/17	<b>Lab Exam 3</b>	

**All lab exam reviews are in Baker 1869 from 9 am until 2 pm.**