

**RCC Biology 1 Lab Syllabus: Spring 2010 FRI. 9.20 am - 12.43 pm #42247****Dr Lisa (Elisabeth Thompson-Eagle), LS101-B, Phone: (951) 328-3835****Office Hrs:** T/Th 10.30-12.30pm, Th 2-4pm. And by appointment M/W/F .**E-mail:** [Elisabeth.Thompson-Eagle@rcc.edu](mailto:Elisabeth.Thompson-Eagle@rcc.edu)**Required Texts:** *Biology 1 Laboratory Manual, RCC Life Sciences & Biology 1 Lecture Textbook.*

Welcome to General Biology 1 Lab! This course is an introduction to basic biological principles and processes ranging in scale from molecules to ecosystems. Emphasis will be placed on cellular and molecular biology, genetics, evolution and ecology. Biology is a dynamic field of study and the lab experience will introduce you to the vast diversity of life. By the end of this course, you should be able to

- List the steps of the scientific method, and understand the process of science.
- Recognize the components and organization of the cell, how cells and multicellular organisms acquire and utilize energy.
- Comprehend and describe the steps involved in cellular reproduction.
- Compare and contrast individual organisms, and population dynamics which include heritability, adaptation, and evolutionary principles.
- Explain the ecosystems, and the dynamics of the biosphere.
- Relate biological principles to the lives of organisms including humans, and interpret their place in the environment.
- Use appropriate biological terminology in discussing biological principles and relationships.

Your understanding of all concepts, vocabulary, and laboratory protocols presented during lab and by your lab manual are subject to evaluation. Your success in this class depends on you, but together we can make this course one of the most interesting classes of your college career!

**This is a tentative Schedule: Students are responsible for changes in the syllabus.**

<b>Week</b>	<b>Dates</b>	<b>Topics</b>	<b>Exercise</b>
	<b>FRIDAYS</b>		
1	Feb 19	Intro, Syllabus, Experimental Design	1
2	Feb 26	Scientific Method, Metric System	2
3	Mar 5	Biological Molecules	3
4	Mar 12	Microscopy, Cells & Cell Structure	4
5	Mar 19	Molecular Movement & Membrane Transport	5
6	Mar 26	Respiration and Photosynthesis	6
7	Apr 2	Mitosis and Meiosis;	7
<b>8</b>	<b>Fri, Apr 9</b>	<b>Practicum 1</b>	<b>Study Ex. 1-7</b>
Holiday!	Apr 12 - Apr 16	<b>SPRING BREAK</b>	-
9	Apr 23	Intro to Mendelian Genetics	8
10	Apr 30	DNA Replication, Transcription, Translation and DNA Extraction	9
11	May 7	Evolution and Natural Selection	10
12	May 14	Kingdoms: Bacteria, Archaea, Protista, and Fungi	11
13	May 21	Kingdom Plantae	12
14	May 28	Kingdom Animalia	13/14
15	Jun 4	Ecology/Conservation Biology	14
<b>15/16</b>	<b>Fri, Jun 4</b>	<b>Practicum 2</b>	<b>Study Ex.8-14</b>

**Attendance & Punctuality:** Attendance is mandatory . I reserve the right to drop you from the course or issue a failing grade if you miss more than 6 hours of lab. Each tardy or early departure will be considered an absence. If you miss lab for any reason, you must make up that lab that week. You must obtain permission from me so that I may obtain permission from the other lab instructor before attempting to make up the lab. Do not show up at another lab section and expect to be allowed into the class. Missing a Practicum will result in an "F" for the class and cannot be made up except under exceptional circumstances with full documentation. (FYI: vacations, birthdays, and sporting events do NOT count as exceptional circumstances!). Late students are not permitted to take the weekly quiz so do your best to arrive on time or you are likely to lose points.

**Grading Scale:** The approximate grading scale for the course is as follows:  
A = 90 - 100%      B = 80 - 89%      C = 70 - 79%      D = 60 - 69%      (Below 60% = F)

**Lab Grade:** The laboratory portion of the class is worth 40% of your class grade. There will be 2 laboratory practicums (exams) as well as weekly quizzes and other assignments. Your lab grade (%) will be forwarded to your lecture instructor. Your % lab grade will be based on the following point totals:

Weekly Quizzes:	100 pts	Supplemental points : assignments,	
Midterm 1 Practical:	100 pts	<u>homework, participation, &amp; professionalism.</u>	<u>100 pts</u>
Final Practical:	100 pts	<b>Total Available Points:</b>	<b>400 POINTS</b>

**Weekly Quizzes:** Quizzes consisting of 5 to 10 questions will be given at the beginning of each lab period. Missed quizzes cannot be made up. Please arrive promptly to lab, as quizzes may not be taken late. In order to be eligible to have your quiz graded, you must complete the entire lab for that day. One quiz will be dropped.

**Lab Practicals:** Practical exams will consist of 50 questions each. The mid-term practical will cover all material from the first half of the semester. The final practical is not cumulative and will cover only material from the second half of the semester. Example questions/demonstrations will be presented during lab before the first exam.

**Additional Assignments:** Any additional assignments will be discussed in class and must be typed and handed in at the designated time. Assignments are not limited to, but may include one or more of the following: homework exercises, work sheets, graphs, data analysis, tables & charts, drawings, study cards, oral presentations, group talks, powerpoint presentations, a written scientific paper, persuasive reports and critiques of published scientific papers. No late assignments will be accepted.

**Participation and Professionalism:** This portion of your grade is specifically designed to encourage active (not necessarily vocal) participation during the lab period as well as respect for the instructor, your peers, and the lab equipment. I reserve the right to dismiss anyone from class at anytime whose behavior is detrimental to the learning environment. Points will be awarded at the end of each lab. Failure to thoroughly clean your lab area or properly store lab equipment may result in deductions.

**Cell phone/Blackberry use/Beepers & Texting during lab:** is NOT acceptable; please turn them off or set them to "silent mode" during class or you will be asked to leave the classroom. Deductions for use of electronic devices and other specified infractions will be at the discretion of the professor. You may not use any dictionary, translation devices, or calculators during practicums or quizzes.

**Policies and Academic Honesty:** All exams and assignments must be your own work, original and written in your own words in order to receive credit for the activity. You will be expected to adhere to the College's policies on academic honesty at all times. Anyone caught cheating, copying or plagiarizing on exams, quizzes, assignments or any other work for this course will be issued a failing grade for the assignment, removed from the classroom and subject to severe institutional disciplinary action according to RCC policy. A failing grade in the course will be issued for a second offense of cheating. A student who has been caught cheating or plagiarizing (or any other instance of academic dishonesty) will become ineligible for any discretionary points retroactive to the beginning of the semester.

**Accommodations:** Please keep me informed. If you have a documented physical, psychiatric/emotional, medical, or learning disability that may impact your ability to carry out assigned course work, I urge you to contact the staff in Disabled Students Programs and Services at 222-8060. DSP&S will review your concerns and determine, with you what accommodations are necessary and appropriate. All information and documentation is confidential.