

**BISC 120Lg Lecture Syllabus, Summer 2014**  
**General Biology: Organismal Biology and Evolution**

~ March 7, 2014 draft -

Overview	This 4-unit biology course will present several key topics in evolution, ecology, environment, and the diversity of life. These topics will be covered in a series of four weekly lectures (Monday, Tuesday, Wednesday, and Thursday) and two weekly laboratory sections (Tuesday and Thursday).
Faculty Instructors	Dr. Oliver Rizk, ZHS 256, 213-740-8352, <a href="mailto:orizk@usc.edu">orizk@usc.edu</a> Dr. Andrew Gracey, AHF 231, 213-740-2288, <a href="mailto:gracey@usc.edu">gracey@usc.edu</a>
Lab Manager	Gorjana Bezmalinovic, ZHS 362, 213-740-6078, <a href="mailto:bezmalin@usc.edu">bezmalin@usc.edu</a>
Textbooks	<u>Lecture</u> <a href="#">Campbell Biology 9<sup>th</sup> ed.</a> (with Mastering Biology™), 2011. (or 10 <sup>th</sup> ed.) <u>Laboratory</u> <a href="#">General Biology Laboratory Manual FALL 2013, BISC 120 &amp; BISC 121 Courses, USC.</a> <a href="#">Adams &amp; Crawley (2013). Van De Graaff's Photographic Atlas for the Biology Laboratory, 7<sup>th</sup> ed.</a> <a href="#">Pechenik. A Short Guide to Writing About Biology. 8<sup>th</sup> ed.</a> (e-copy included with the USC custom textbook)
Website	<a href="https://blackboard.usc.edu/">https://blackboard.usc.edu/</a> (site for course materials, lecture notes, quizzes, additional readings, grades, etc.)
Lecture times	Monday, Tuesday, Wednesday, Thursday 10:00 A.M. – 12:05 P.M. in MHP 105
Laboratory times	Tuesday and Thursday 1:00 – 3:50 P.M. in ZHS 365 and ZHS 369
Office Hours	Rizk: Monday and Wednesday, 1:00 to 2:00 pm Gracey: TBA
Exams	The lecture portion of this course will include four exams (two from each professor). All exams may include multiple choice questions, matching questions, fill-in answers, true/false answers, short answers, short essays, definitions, and quantitative problems. Students must take all four lecture exams to complete the course and complete at least 80% of the assigned laboratory activities. Exams completed by students may be photocopied by the instructional staff.
Lecture Quizzes	<b>Five lecture quizzes</b> (each worth 12 points) will be administered online via <b>Blackboard</b> . The quizzes will be posted by 2:00 pm on Fridays and will remain available until 9:00 am the following Monday. The first quiz will be posted on <b>May 24</b> . Questions will cover <b>the following week's material</b> . Answers to quiz questions will be posted on Monday afternoons.

## BISC 120 Syllabus — Summer 2014

### Grading

After each examination, point-grades will be released. There is no fixed number for a specific set of grade-points (“absolute score”) that will result in grades that earn an A, B, or C etc. The final grades will be assigned on a curve, determined by the total number of points earned (lecture exams and laboratory portion of the course). The point system will total 1000 points, as follows:

Exam 1	160
Exam 2	160
Exam 3	160
Exam 4	160
Lecture Quizzes	60
<u>Laboratory Quizzes, Reports and Exams</u>	<u>300</u>
<b>TOTAL POINTS IN COURSE</b>	<b>1000</b>

Laboratory scores will be normalized as explained in the laboratory syllabus in order to correct for possible differences in grading between teaching assistants (TAs). Final grades that are borderline (for example,  $\pm 5$  pts from a grade cut-off line) will receive a grading decision based on attendance, effort, participation in the laboratory and lecture, etc. TAs will evaluate the total performance of the students and give students a “+” (e.g., if within  $\pm 5$  pts of grade cut-off, a grade might be raised from a B to a B+, or a B+ to A- etc.), or a “0” (borderline grade stays the same), or a “-” (grade might be lowered, e.g., B+ to B).

Schedule of lecture topics (subject to modification of specific topics and reading assignments):

Day	Lecturer	Lecture	Readings
Wed May 21	Rizk / Gracey	1 Introduction	
	Rizk	Patterns of Inheritance	14
		Inheritance of Chromosomes & DNA	15.1-15.3
Thu May 22	Rizk	2 The Darwinian Revolution	16.1, 22
Mon May 26		<b>Memorial Day – NO CLASS!</b>	
Tue May 27	Rizk	3 Evolutionary Mechanisms	23
		Origins of Life	25.1-25.4
Wed May 28	Rizk	4 Phylogenetic Systematics	26
Thu May 29	Rizk	5 Prokaryote Structure/Function	27
Mon June 2	Rizk	6 <b>EXAM 1</b>	
Tue June 3	Rizk	7 Prokaryotes/Genomes and their Evolution	21.1, 21.3-21.4
		Viruses	19
Wed June 4	Rizk	8 Protist Origins and Diversity	28.1-28.5

## BISC 120 Syllabus — Summer 2014

Thu June 5	Rizk	9 Protists continued	28.6-28.7
		The Fungi	31.1-31.3, 31.5
Mon June 9	Rizk	10 How the Plants Colonized Land	29
		Plant Diversity	30.1-30.4
Tue June 10	Rizk	11 Plant Transport	36
		Soil and Nutrition	37
<b>Wed June 11</b>	Rizk	12 <b>EXAM 2</b>	
Thu June 12	Gracey	13 Speciation/Macroeolution Behavioral Evolution/Social Evolution	24.1-24.2, 24.4, 25.6, 51
Mon June 16	Gracey	14 Animal Diversity – Invertebrates 1	32 & 33
Tue June 17	Gracey	15 Animal Diversity – Invertebrates 2	32 & 33
Wed June 18	Gracey	16 Animal Diversity – Invertebrates 3	32 & 33
<b>Thu June 19</b>	Gracey	17 <b>EXAM 3</b>	
Mon June 23	Gracey	18 Animal Diversity – Vertebrates 1	34
Tue June 24	Gracey	19 Animal Diversity – Vertebrates 2	34
Wed June 25	Gracey	20 Ecology and Biosphere 1	52-56
Thu June 26	Gracey	21 Ecology and Biosphere 2	52-56
Mon June 30	Gracey	22 Ecology and Biosphere 3	52-56
<b>Tue July 1</b>	Gracey	23 <b>EXAM 4</b>	

**Additional readings for specific lectures will be posted on Blackboard during the semester.**

### Course Policies

#### **Policy on Re-grading Exams**

If you feel that an error was made in the grading of an exam, you need to do the following: 1) Check the answer key with your TA, 2) Prepare a **printed statement** explaining why you feel your grade was incorrect, 3) Submit your printed statement, Re-grade Request Form (downloaded from Blackboard) and your original exam to your TA **within one week** of the time the examination was returned to you. The TA will either handle the re-grade or consult with the professors. The entire exam will be re-graded and, as a result, your grade may increase or

decrease from a requested re-grade. No frivolous reasons will be accepted for requesting grade changes; stated reasons for a grade change must be legitimate (e.g., error in totaling the score).

### Policy on Missed Lecture Exams

**No make-up lecture exams will be given in this course.** If you have to miss a lecture exam due to religious holiday (<http://orl.usc.edu/religiouslife/holydays/absences.html>) or university-sanctioned event (e.g., student athletes with away-games) you must notify the Lab Manager at least 7 days in advance. If you miss an exam due to medical illness you must present a valid medical excuse to the Laboratory Manager **within 48 hours** of the missed exam. The excuse cannot be to attend a dental appointment, a conference, or other similar reasons. The reason for missing an exam must be of a medical nature or totally unavoidable (e.g., a verified automobile collision on the day and time of the examination). Remember that the USC Student Health Center does not provide routine medical excuses. You should notify the Laboratory Manager in writing that you were seen by a doctor, making sure that you include: 1) the doctor's name and telephone number, and 2) a statement authorizing us to discuss with the doctor whether you were too ill to take the examination. We will contact the doctor and decide whether or not you have a valid excuse. If the excuse is valid, your grade for that exam will be pro-rated based on the average of your other comparable exams and the class average for that particular test. An invalid excuse will result in a score of zero for the missed exam.

If you miss the final exam and have provided a valid medical excuse to the Laboratory Manager **within 48 hours of the examination time**, a final course grade of incomplete (IN) will be recorded and you will be permitted to take a make-up final examination during the following semester. **You will receive zero points for an exam if you miss it for an invalid reason.**

### Extra Credit

**No extra credit** will be given for special projects, etc.

### Students with Disabilities

Students requesting academic accommodations based on a disability are required to register with the Office of Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Be sure that the letter is delivered to the Laboratory Manager as early in the semester as possible, preferably by May 30, 2014. DSP is located in STU 301 and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. The telephone number of DSP is 213-740-0776. If a student's approved accommodation is limited to extra time on examinations, the teaching staff of BISC 120 will provide the accommodation. For any other accommodation, such as a private room, computer, scribe, etc., students must make prior arrangements with the DSP office 2 weeks before the exam date. For more information please visit the following website:

[http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html)

### Statement on Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the

obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. Scampus, the Student Guidebook, contains the Student Conduct Code in Section 11.00: <http://web-app.usc.edu/scampus/1100-behavior-violating-university-standards-and-appropriate-sanctions/>, while the recommended sanctions are located in **Appendix A**. Students will be referred to the Office of Student Judicial Affairs and Community Standards (SJACS) for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

### **Website**

Students are responsible for logging onto Blackboard (<https://blackboard.usc.edu>) and checking the course website on a regular basis. Postings on Blackboard will be an official source for announcements, course materials, lecture notes, lab notes, score postings and general discussions. Weekly quizzes will also be completed on Blackboard.

### **Gift Policy**

No gifts or presents of any kind are permissible to give to any of the instructional staff.

### **Final Comments**

No exceptions will be made to these policies under most circumstances. If you think that the instructor or TA has granted you **any deviation** from the policies in this document and associated course syllabus, you must obtain their **written agreement** to support that claim.


## BISC 120 Laboratory Syllabus

**Lab Manager:** Gorjana Bezmalinovic  
 E-mail: [bezmalin@usc.edu](mailto:bezmalin@usc.edu)  
 Office hours: Open door policy

ZHS 362

Tel. 213-740-6078  
 Fax 213-740-8123

### Laboratory Schedule:

Lab #	Date	Laboratory	Lab Manual
1	May 22	Laboratory Safety and Skills The Microscope	Chapter 1, Appendices A, B Chapter 2, Appendix C
2	May 27	Evolution <i>(Prepare plates!)</i>	Chapter 3
3	May 29	Bacteria*	Chapter 4
4	June 3	Protists <i>(Bacteria and Antibiotics Lab Report DUE)</i>	Chapter 5
	June 5	LAB EXAM 1	
5	June 10	Fungi <i>(Cut planaria!)</i>	Chapter 6
6	June 12	Plant Diversity I	Chapter 7
	June 16	Tide pools	
7	June 17	Plant Diversity II	Chapter 8
8	June 19	Animal Diversity I: Invertebrates*	Chapter 9a
9	June 24	Animal Diversity II: Echinoderms and Chordates <i>(Planaria Regeneration Lab Report DUE)</i>	Chapter 9b
	June 26	LAB EXAM 2 <i>(Lab Manuals DUE)</i>	
	July 1	Lab reports, lab exams, and lab manuals returned to students	

\* Exercise for which lab report is required.



Tide Pools Field Trip – early morning on Monday **June 16, 2014**.



The Lab Manager reserves the right to make adjustments during the semester.

Required Textbooks available at the USC bookstore:

[General Biology Laboratory Manual FALL 2013, BISC 120 & BISC 121 Courses, USC.](#)

Adams & Crawley (2013). [Van De Graaff's Photographic Atlas for the Biology Laboratory](#), 7<sup>th</sup> ed. Pechenik. [A Short Guide to Writing About Biology](#). 8<sup>th</sup> ed. (e-copy included with the USC custom textbook).

## LABORATORY POINT DISTRIBUTION

The laboratory portion (**300 points**) will count for 30% of your final course grade, distributed as follows:

Lab Quizzes (9 – 5 points each)	45
Lab Manual (10 labs – 5 points each)	50
Lab Reports (2 – 35 points each)	70
Lab Exams (2 – 50 points each)	100
Tide pool field trip	25
<u>Lab participation</u>	<u>10</u>
TOTAL POINTS	300

## LABORATORY PERFORMANCE GUIDELINES

1. You are required to attend all lab sessions. Any unexcused absences will seriously affect your evaluation. Come to lab on time. You are also to remain for the entire lab session or until excused by your instructor. Don't make other appointments for the time you are scheduled to be in lab.

**Students who are within 5 points of a grade borderline at the end of the semester will be considered for an upgrade based on the following criteria: class participation, lecture attendance, coming to office hours, and subjective evaluation by the TA, Lab Manager, and faculty.**

2. Before you begin the lab exercise, make sure that you remove all unnecessary materials from your work area. At the end of the lab session, clean and return all supplies to their proper place, clean your work area, and slide your chair under the table. Check with your instructor before leaving.

**NO EATING OR DRINKING IS ALLOWED IN THE LABORATORY UNDER ANY CIRCUMSTANCES.**

3. **LAB QUIZZES:** Each student will take a quiz during the first 5 minutes of each lab session. Students coming late to lab without a valid excuse will not be allowed to make up the quiz. Quizzes will consist of multiple choice questions and/or fill-in-the-blanks. Out of 5 questions, 3 will test you on the knowledge of the material you will be covering that day in lab, and the other 2 will test you on the results from the previous lab.
4. **LAB WRITE-UPS:** During each lab students need to record their results (drawings, observations, calculations) **in their lab manual**. Tables need to be filled and all post-lab questions answered. Each student is required to show his/her TA the lab manual and obtain TA's signature before leaving the lab. Lab manuals will be collected for grading at the end of the semester.

5. **LAB REPORTS:** Two lab reports will be written during the semester. Lab reports must be posted on Blackboard (*Lab Reports* [turnitin](#) link) and a hard copy turned in at the beginning of the lab session. Lab report guidelines will be posted on Bb (<https://blackboard.usc.edu/>) in the beginning of the semester.

6. **LAB EXAM:** The two lab practical exams will test your understanding of the topics and exercises covered in the laboratory sessions. You will have a written portion and a practical portion (being able to use a microscope to identify different organisms). The first lab exam will cover material covered in labs 1 – 4, while labs 5 – 9 will be covered on the second exam.

**Missed Lab Exam:** It is your responsibility to make it to lab on the day of the lab exam. If you miss the exam due to a serious illness (e.g., admission to the hospital) or a true emergency (e.g., traffic accident) that you could not attend school, you must present a valid excuse to the Lab Manager [no later than 48 hours](#) of the missed exam. A valid excuse must include names and phone numbers for verification purposes. If you have a valid excuse, you will be allowed to take the make-up lab exam at a different time. If you do not have a valid excuse, or fail to provide it within the allotted time, you will receive zero points for the missed lab exam.

7. **TIDE POOLS FIELD TRIP:** This project is designed to provide you with an opportunity to explore the marine (intertidal) environment, observe animals and plants from a diverse array of phyla/divisions, and learn how animals and plants interact with each other and their environment. We will go to the beach located between the *Royal Palms State Beach* and *Point Fermin Park* in San Pedro. All the necessary information regarding this field trip will be posted on Blackboard (<https://blackboard.usc.edu/>) at the beginning of the semester.

8. **MISSED LABS:** If you must miss a lab exercise due to illness or emergency, please contact the Lab Manager the same day, preferably prior to your lab section. Athletes who must miss occasional labs for legitimate reasons should bring documentation to the Lab Manager two weeks in advance. If you must miss a lab due to religious holidays, please notify the Lab Manager two weeks in advance as well.

9. **POSTING GRADES:** You can find your lecture and lab grades on Blackboard: <https://blackboard.usc.edu/>. Lecture exam scores are posted under **LECTURE SECTION**. All lab grades are posted under your **LAB SECTION**. Be sure to check for additional postings on a regular basis. It is the student's responsibility to notify his/her TA or Lab Manager ASAP in the event of any mistakes.

10. **LABORATORY SCORE NORMALIZATION\*:** The laboratory scores will be normalized at the end of the semester by the Lab Manager to correct for differences in grading between teaching assistants (TAs). In this procedure, the mean total score of all students in each TA's lab is compared to the mean total score of the entire class and each student's score is adjusted.

\* If there are two or more lab instructors (TAs).

10. **STUDENTS WITH DISSABILITIES:** Students requesting academic accommodations based on a disability are required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP when adequate documentation is filed. The letter needs to be delivered to the Laboratory Manager as early in the semester as possible, preferably by May 30, 2014. DSP is open Monday-Friday, 8:30-5:00. The office is in Student Union 301 and their phone number is (213) 740-0776. For more information please visit the following website: [http://sait.usc.edu/academicsupport/centerprograms/dsp/home\\_index.html](http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html)