

**Prof. Albert Herrera**  
**BISC 220 (General Biology: Cell Biology and Physiology), Fall 2022**  
**Schedule for TuTh 9:30 - 10:50 am Lectures (Section 13022)**  
***Tentative Lecture Schedule – Subject to Revision***

Lecture	Date	Day	Topic	Campbell Biology, 12 <sup>th</sup> Ed
1	Aug 23	Tu	Course Introduction; Cells 1	Ch 6
2	Aug 25	Th	Cells 2	Ch 6
3	Aug 30	Tu	Cell Membranes	Ch 7
4	Sep 1	Th	Cell Communication 1	Ch 11
5	Sep 6	Tu	Cell Communication 2	Ch 11
6	Sep 8	Th	Metabolism 1*	Ch 8
7	Sep 13	Tu	Metabolism 2	Ch 8, 9
---	Sep 15	Th	<i>Exam 1 (lectures 1-7)</i>	----
8	Sep 20	Tu	Metabolism 3	Ch 9
9	Sep 22	Th	Photosynthesis	Ch 10
10	Sep 27	Tu	Cell Cycle; Mitosis	Ch 12
11	Sep 29	Th	Cardiovascular System 1	Ch 42.1 - 42.4
12	Oct 4	Tu	Cardiovascular System 2	Ch 42.1 - 42.4
13	Oct 6	Th	Respiration 1**	Ch 42.5 - 42.7
---	Oct 11	Tu	<i>Exam 2 (lectures 8-13)</i>	----
---	Oct 13	Th	<i>Fall Recess – No class</i>	----
14	Oct 18	Tu	Respiration 2	Ch 42.5 - 42.7
15	Oct 20	Th	Immunity 1	Ch 43
16	Oct 25	Tu	Immunity 2	Ch 43
17	Oct 27	Th	Fluid and Electrolyte Balance 1	Ch 44
18	Nov 1	Tu	Fluid and Electrolyte Balance 2	Ch 44
19	Nov 3	Th	Endocrine System 1	Ch 45
---	Nov 8	Tu	<i>Exam 3 (lectures 14-19)</i>	----
20	Nov 10	Th	Endocrine System 2***	Ch 46
21	Nov 15	Tu	Neuronal Signals 1	Ch 48
22	Nov 17	Th	Neuronal Signals 2	Ch 48
23	Nov 22	Tu	Neuronal Signals 3	Ch 48
---	Nov 24	Th	<i>Thanksgiving Break – No class</i>	----
24	Nov 29	Tu	Motor System 1	Ch 50.5
25	Dec 1	Th	Motor System 2	Ch 50.5
	Dec 8	W	<i>Exam 4, 11:00 am (lectures 20-25)</i>	

\* Friday, September 9 is the last day to drop without a “W” and with tuition refund.

\*\* Friday, October 7 is the last day to drop without a “W” on transcript only and without tuition refund.

\*\*\* Friday, November 11 is the last day to drop with a mark of “W”.

### A. General Course Description and Policies

#### Catalog Description

Biological Sciences 220Lg – General Biology: Cell Biology and Physiology (4 units)

In-depth survey of key topics related to advances in our knowledge of cellular biology and physiology; cell composition/metabolism; gene action; organism structure and function. *Recommended*

*preparation:* high school chemistry; BISC 120Lg or BISC 121Lg. *Note:* This course carries GE credit but it is intended for a specific group of students rather than a general student audience. It is part of the curriculum for majors and pre-professional students. Laboratory sections 13023, 13025, 13030 and 13031 are "SEA-PHAGES" Genomics sections.

### Instructors

Albert Herrera      HNB 116      Phone 213-740-9177      [aherrera@usc.edu](mailto:aherrera@usc.edu)

To meet with Dr. Herrera (via Zoom):

- Q&A Sessions will be held twice weekly to discuss course material (see schedule below).
- Office hours for discussion of confidential matters will be held by appointment.

### Laboratory Manager

Dr. Brett Spatola, ZHS 362, [spatola@usc.edu](mailto:spatola@usc.edu), 213-740-6078

Office hours: Open door policy

### Laboratory Instructors

Prof. Nancy Castro, ZHS 256, [ncastro@usc.edu](mailto:ncastro@usc.edu) (SEA-PHAGES Genomics sections)

Danny Osorio, [daosorio@usc.edu](mailto:daosorio@usc.edu)

Maryam Sonia Setayesh, [msetayes@usc.edu](mailto:msetayes@usc.edu)

### Textbooks

- *Campbell Biology*, by Reece et al., 12<sup>th</sup> edition, 2020  
N.B. – Although the 12<sup>th</sup> edition is the official textbook for the class, it is not substantially different from the 11<sup>th</sup> edition or even the 10<sup>th</sup> edition. Students interested in saving money may opt for one of the older editions.

### Website <https://blackboard.usc.edu/>

- We will post all course materials, information, recordings, announcements, and grades on Blackboard until the end of the semester. Blackboard is intended only for appropriate, course-related activities. Use for other purposes will result in disciplinary action.

**Lectures** *Note: All lectures will be presented remotely, via Zoom. Lab sections will be held in-person and online as described below.*

- Lectures will be given via live (synchronous) Zoom sessions on Tuesdays and Thursdays, 9:30-10:50 am PDT. The sessions will start with students' video and audio muted, but students can turn on their cameras and audio at any time they wish. Questions during lecture are encouraged. Video and audio recordings of lectures will be posted on Blackboard the same day.
- We do not recommend these recordings as a substitute for regular participation in the live lectures. Use them to fill gaps in your notes, review difficult material, and as a substitute for the occasional missed lecture. *It would be a serious mistake to use the recordings as an excuse to procrastinate. Given the breadth and depth of the material, you must not fall behind. Keep up with the lecture schedule!*

### Laboratory (See Part B below for the complete laboratory syllabus)

- The lab portion of the course will be offered in person, in ZHS 460 or ZHS 369 (see Schedule of Classes for lab room assignments).
- Lab sections 13023, 13025, 13030, and 13031 are "SEA-PHAGES" Genomic sections. See B1, below, for a description of these sections.
- Lab sections 13024, 13026, and 13178 will cover traditional topics in a course of this sort. See B2, below, for a list of topics and a schedule.

- The laboratory is an integral and essential component of the course, intended to give you experience with the processes, tissues, and concepts discussed in the lecture part of the class, and to deepen your understanding of the scientific literature and science as a process.
- Part B of this syllabus describes the purposes, policies, and procedures of the laboratory.
- Performance in the laboratory will account for one-third of each student's grade.

### Lecture Exams

- Times and coverage of lecture exams are as follows. All times are PDT.  
Exam 1: Thursday, Sep 15, 9:30 - 10:30 am, covering lectures 1-7  
Exam 2: Tuesday, Oct 11, 9:30 - 10:30 am, covering lectures 8-13  
Exam 3: Tuesday, Nov 8, 9:30 - 10:30 am, covering lectures 14-19  
Exam 4: Wednesday, Dec 8, 11:00 am - 1:00 pm, covering lectures 20-25
- Lecture exams will be administered in-person and will consist entirely of multiple choice and true/false questions. We will announce details of exam administration. Lecture exams will only cover lecture topics; laboratory topics will be covered on separate lab exam and assignments. Please note: *Exam questions will not ask for rote repetition of information that can be easily memorized or looked up. Rather, questions will require you to use the lecture information to solve novel problems (see comments on quizzes below). Be prepared!*

### Instructor-Led Exam Reviews

- For all 4 lecture exams, Dr. Herrera will hold an online review session via Zoom just before the exam. We will announce dates and times. We will record and archive the exam reviews.

### Twice Weekly Question & Answer Sessions

- Dr. Herrera will host live Q&A sessions via Zoom. Q&A sessions will be held on Tuesdays 1:00-1:50 pm and Thursdays 4:00-4:50 pm. All Q&A sessions will be recorded and posted on Blackboard.
- *Although they are not required, it is highly recommended that you participate in the Q&A sessions as often as you can. Don't feel pressure to ask "good" questions, or any questions at all. Just listening is fine, as is asking straightforward questions like "Can you re-explain...," or "I just don't understand...". These are also great opportunities to get to know your instructor better. Besides answering questions, advice may be given on studying, time management, preparing for medical school and other graduate/professional programs, research opportunities, etc. Frequent attendance at Q&A sessions is one of several factors that favor boosting your grade in borderline cases (see Grading, below).*

### Instructor Office Hours

Please email Dr. Herrera for individual office hour appointments via Zoom. Office hours are intended for discussion of individual, confidential matters such as grades. Course subject matter and other public issues should be discussed in Q&A sessions so all students can benefit from the interchange.

### Lecture Quizzes

- A small percentage of the overall grade will be based on 13 quizzes, administered online via Blackboard. The quizzes will be posted by 1:00 pm each Friday beginning September 2 and continuing through December 2. Quizzes must be completed by 9:00 am the following Monday (or Tuesday for Quizzes 1 & 7 – see table below). For each quiz, questions will cover the previous week's material. Answers to most quiz questions will be revealed and discussed in the Q&A session following the Monday deadline or anytime thereafter. Quiz results that are particularly pertinent to our teaching and learning goals may be discussed in class during the first lecture after the deadline. Prior to each lecture exam, all preceding quiz answers will be posted. Here is the quiz schedule:

Quiz Number	Posted by 1 pm on Friday	Deadline 9 am on ...
1	Sep 2	Tuesday, Sep 6*
2	Sep 9	Monday, Sep 12
3	Sep 16	Monday, Sep 19
4	Sep 23	Monday, Sep 26
5	Sep 30	Monday, Oct 3
6	Oct 7	Monday, Oct 10
7	Oct 14	Tuesday, Oct 18*
8	Oct 21	Monday, Oct 24
9	Oct 28	Monday, Oct 31
10	Nov 4	Monday, Nov 7
11	Nov 11	Monday, Nov 14
12	Nov 18	Monday, Nov 21
13	Dec 2	Monday, Dec 5

*\*Note that deadlines are extended for quizzes 1 & 7.*

- Our intention is to make these lecture quizzes challenging, to help you prepare for the more point-heavy lecture exams. *Being able to look up answers and memorize is only the first step. To do well in this course, you must also be able to apply your knowledge to solve novel problems.* The quizzes are designed to give you low-stakes practice at this and thus gauge your level of preparation for exams.
- *This approach will only work, however, if you take the quizzes seriously and responsibly.* You may consult your textbook and any other printed or electronic material. You may also discuss the quiz questions with fellow students, if those discussions focus on understanding the underlying principles. You should not simply share or reveal your answers to other students, for several reasons. First, you will not know until after the deadline whether your answer is correct. Second, you will deprive that student of a learning opportunity. Third, you will diminish your own chances for a better grade by broadcasting your hard-won answers. The quizzes will require a disproportionately large amount of effort – on our part to craft challenging questions, and on your part to discern and understand the correct answers. It is likely that students who cheat by merely copying other students' quiz answers will pay a price on exam days. Please don't be one of those students.
- In recent years, most students came to see the quizzes as one of the most challenging parts of the course, but also one of the most valuable. If you take the quizzes seriously, we think you will come to the same conclusion.

### Grading

- All grades will be posted on Blackboard. Points associated with the lecture (exam scores, online quiz points) will be posted on the Blackboard site for the lecture. Points associated with the lab (lab exam, lab report, quizzes, homework assignments, participation, presentation, discussion of other presentations) will be posted on the Blackboard site for the laboratory. We will try diligently to maintain these Blackboard gradebooks accurately, but mistakes may occur. Please check your scores often and notify your Lab Instructor or the Lab Manager as soon as possible if you notice errors.
- After each lecture exam, an advisory curve will be posted to help students gauge their standing in the class.
- Final grades will be determined according to a curve. Any score within 10 points of the next highest grade will be considered a borderline grade. In such cases, instructors will consider whether to add up to 10 points to increase the grade to the next step. These points will be awarded based on a subjective evaluation of factors such as participation in the laboratory, attendance at Q&A sessions, effort, achievement relative to abilities, background, record of improvement, and other mitigating circumstances.

- If necessary, laboratory scores will be adjusted to correct for differences in grading between Laboratory Instructors.
- Points will only be given for assignments listed in the syllabus. No extra credit will be given.

	Item	Pts Each	Number	Total	Portion Totals
<b>Lecture</b>	Lecture Exams	150	4	600	Lecture = 639 pts
	Online Quizzes	3	13	39	
<b>Lab</b>	Lab Assignments	-	-	-	Lab = 361 pts
					Course total = 1000 pts

### Impairments Affecting Your Performance

- Students occasionally encounter difficulties that affect their academic performance, such as illness, accidents, bereavement, depression, anxiety, learning disabilities, and other problems. If you encounter such difficulties, please contact one of the support services listed below, or bring them to the attention of one of the instructors. We may be able to offer accommodations. All such discussions will be confidential. Please seek help as soon as you feel your performance or well-being is affected.

### IMPORTANT: COVID-19 PROTOCOLS

Students must comply with all COVID-19 safety protocols outlined by university policies. These policies have evolved with the changing conditions of the COVID-19 pandemic and may include social distancing, the use of face coverings, proof of vaccination, and regular COVID testing, among others.

### Support Services

- Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents as soon as possible. Reporting such incidents is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. A list of offices to which one can report such incidents, as well as sources of support for other issues, follows.
- Student Health Counseling Services (213) 740-7711 – on call 24/7 [engemannshc.usc.edu/counseling](http://engemannshc.usc.edu/counseling)  
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.
- National Suicide Prevention Lifeline (800) 273-8255 – on call 24/7 [suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)  
Free and confidential emotional support to people in suicidal crisis or emotional distress.
- Relationship & Sexual Violence Prevention Services (213) 740-4900 – on call 24/7 [engemannshc.usc.edu/rsvp](http://engemannshc.usc.edu/rsvp)  
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.
- Office of Equity and Diversity - Title IX (213) 740-5086 [equity.usc.edu](http://equity.usc.edu), [titleix.usc.edu](http://titleix.usc.edu)  
Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.
- Bias Assessment Response and Support (213) 740-2421 [studentaffairs.usc.edu/bias-assessment-response-support](http://studentaffairs.usc.edu/bias-assessment-response-support)  
Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.
- Office of Disability Services and Programs (213) 740-0776 [dsp.usc.edu](http://dsp.usc.edu)

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs. Please see section below entitled “Students with Disabilities” for important course-specific information.

- USC Support and Advocacy (213) 821-4710 [studentaffairs.usc.edu/ssu](http://studentaffairs.usc.edu/ssu)  
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.
- Diversity at USC (213) 740-2101 [diversity.usc.edu](http://diversity.usc.edu)  
Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.
- USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – on call 24/7 [dps.usc.edu](http://dps.usc.edu), [emergency.usc.edu](http://emergency.usc.edu)  
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.
- USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call [dps.usc.edu](http://dps.usc.edu)  
Non-emergency assistance or information.

### Exam Policies

- If you feel an error was made in the grading of an exam question, you may submit the question for a re-grade according to the following procedure. First, prepare a written statement explaining why your answer deserves more credit, using the Regrade Request Form available on Blackboard. Second, submit this statement to your Laboratory Instructor within one week of when the exam was returned to you. *The entire answer will be re-graded, not just the part you think deserves more credit. In addition, the instructors will review the grading of the entire exam to check for errors in grading. Your grade may go up or down as a result of this re-examination.* Be aware that we usually make copies of corrected exams before we return them, to ensure that students do not alter their answers before submitting them for a re-grade. Altering an answer is considered a serious violation of academic integrity. Please see the section on Academic Integrity (below) for additional information.
- No make-up exams will be given. No extra credit assignments will be given.
- You may be excused from an exam in the event of a documented illness, emergency, or other serious problem beyond your control. *No other excuses for missing exams will be accepted.* If you miss an exam or quiz for a legitimate reason, and wish to ask for an accommodation, you should proceed as follows. Within 48 hours of the start of the missed exam, email to the Lab Manager a request that you be excused. In the case of illness, this request must include either an official letter from your doctor stating that you were too sick to take the exam, or your doctor’s name and contact information with permission for us to contact the doctor for a limited discussion of your condition. Note that neither you nor the doctor need tell us the nature of your illness. If you miss an exam for non-illness related reasons, you must provide similarly convincing documentation of the emergency to the Lab Manager within a week. If we judge your excuse to be valid, we will give you a grade for the missed exam equal to the “curved” average of your grades for the equivalent exams that you did take. Except in extraordinary circumstances, we will make accommodations for only one missed lecture exam. If your excuse is judged not to be valid, or you do not provide it within the allotted time, you will receive a score of zero for the missed exam.
- If you miss Exam 4 and you provide a convincing, well-documented excuse to the Lab Manager within 48 hours of the start of the scheduled exam time, a course grade of Incomplete (IN) will be assigned. It will be your responsibility to contact the instructors to arrange for a make-up version of Exam 4 so that a final grade can be assigned. You will have a year to complete the requirements for removal of the IN. After this, your grade will change to an IX (Lapsed Incomplete), which counts as an F in the GPA. If you miss Exam 4 and do not submit a valid excuse, a course grade will be calculated based on your other scores and a zero for Exam 4.

- Each student must take Exam 4 at the designated time, according to the regular final examinations schedule. Keep this in mind as you plan your studying for this and other courses during the final exam period. Do not make travel plans that conflict with your designated Exam 4 time.

### Supplemental Instruction

- We strongly recommend that students participate actively in the peer-led Supplemental Instruction program (<http://dornsife.usc.edu/supplemental-instruction/>). The SI leaders will hold regular study sessions beginning in the second week of classes. They will also conduct review sessions before each exam. Further information about the SI program as well as schedules and weekly worksheets can be found at <http://www.usc.edu/si>.
- The Supplemental Instruction Leader for BISC 220 will be TBN. Contact them at [bisc220si@gmail.com](mailto:bisc220si@gmail.com). The schedules for SI sessions and exam reviews will be posted at [www.dornsife.usc.edu/session-schedules](http://www.dornsife.usc.edu/session-schedules). SI leaders are selected for the high grades they earned in assigned courses and for their overall academic strength, success in advanced biological studies, and superior communication skills. We highly recommend them as sources of academic and pre-professional advice.

### Academic Integrity

- Our university depends on honesty, integrity, and ethical behavior among its members. Among other things, students' ethical behavior includes respecting the intellectual property of others, submitting individual work unless otherwise directed by the instructor, protecting one's own academic work from misuse by others, and avoiding the use of another's work as one's own.
- We have reliable, time-tested methods for detecting cheating, plagiarism, and other violations of academic integrity. *Please note that sanctions for violations are severe.* This is necessary to protect the integrity of grades and the academic process. The minimum sanction is usually an F for the course. Suspension or expulsion from the university is also possible in egregious cases or for repeat offenses.
- Here is a partial list of actual violations that have been perpetrated by BISC 220 students in recent years. The numbers in parentheses refer to relevant paragraphs in the University Governance section of SCampus (see resource 5 in the list below). *Most of these students received grades of F and were reported to the Office of Student Judicial Affairs and Community Standards.*
  1. Copying answers from other students during lecture or lab exams. (11.13)
  2. Submitting lab reports containing substantial portions plagiarized from other students. (11.11, 11.12)
  3. Use of Blackboard resources for commercial gain (11.19)
  4. Selling class notes and material downloaded from Blackboard to a web-based company that re-sells such material. (11.12B)
  5. Re-submission of a lab report written by the same student in an earlier semester. (11.16)
  6. Altering answers on a graded exam and submitting the altered exam for re-grading. (11.13B)
  7. Continuing to write answers on an exam after time has been called. (11.21)
  8. Unauthorized use of personal electronic devices, e.g., smartphones, during exams. (11.13)
  9. Students using multiple clickers to gain participation points for non-attending students. (11.18)

*- All of these offenses were considered serious and resulted in disciplinary action. Do not do them!*
- Resources on academic integrity standards, policies, and expectations:
  1. Trojan Integrity: A Guide to Understanding and Avoiding Academic Dishonesty: <https://sjacs.usc.edu/files/2015/03/tio.pdf>
  2. Trojan Integrity: A Guide for Avoiding Plagiarism: [https://dornsife.usc.edu/assets/sites/903/docs/Trojan\\_Integrity\\_-\\_Guide\\_to\\_Avoiding\\_Plagiarism.pdf](https://dornsife.usc.edu/assets/sites/903/docs/Trojan_Integrity_-_Guide_to_Avoiding_Plagiarism.pdf)
  3. Overview of Academic Integrity: <https://sjacs.usc.edu/files/2015/11/Academic-Integrity-sheet-2013.pdf>
  4. Tutorials on Academic Integrity: <https://libraries.usc.edu/research/reference-tutorials>
  5. SCampus (see especially sections 11, 13, 15 and Appendix A): <https://policy.usc.edu/student/scampus/>
  6. Scientific Misconduct: <http://policy.usc.edu/scientific-misconduct/>

### **Students with Disabilities**

Students requesting academic accommodations based on a disability are required to register with the Office of Student Accessibility Services (OSAS) each semester. A letter of verification for approved accommodations can be obtained from OSAS. Be sure to email the accommodations letter (PDF) to Laboratory Manager Dr. Brett Spatola as early in the semester as possible, **preferably by September 9, 2022**. OSAS is located in GFS 120 and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. If a student's approved accommodation is limited to extra time on examinations, the teaching staff of BISC 220 will provide the accommodation. For any other accommodation, such as a private room, reader or a scribe, students must make prior arrangements with OSAS two weeks before the exam date. For more information please visit the following website: <https://osas.usc.edu/>, or contact them at (213) 740-0776 or [osasfrontdesk@usc.edu](mailto:osasfrontdesk@usc.edu).

### **Policies Concerning Student-Athletes**

Student-athletes may not be penalized when University-sanctioned competitions conflict with course activities or examinations. When a class will be missed for a sanctioned competition, it is the student-athlete's responsibility to approach the instructor in advance. The student-athlete must provide the instructor with a letter from Denise Kwok, Director of *Student-Athlete Academic Services* (SAAS) <https://saas.usc.edu/academic-support-services/travel/excused-absence-letter/>. The letter must certify that the competition is a University-sponsored event that deserves accommodation. Accommodations will not be made for other types of conflicting events. Details on the University's policy can be found at: [https://www.provost.usc.edu/ocaa\\_guidelines/](https://www.provost.usc.edu/ocaa_guidelines/). Arrangements for the accommodation must be agreed upon in advance of the event. If multiple team members will be absent, each must make an individual arrangement with the instructor. If an assignment is due on the date when class is missed, the instructor may require that it be turned in before the missed class or at the first class meeting after the student returns. If a test has been scheduled for the date when class is missed, the instructor may arrange with SAAS to have the test administered by an academically qualified proctor (not a coach) during the trip. Alternatively, the instructor may agree to pro-rate the exam score, i.e., substitute the missing exam score with a score based on the average of the student's scores for the other exams compared to the class average for those exams.

### **Email Communication**

To ensure privacy, only students' USC accounts (*usc.edu* domain name) can be used for email communications regarding confidential matters. Other email accounts cannot be used. Students are responsible for understanding the content of official messages that instructors send to their USC accounts. Therefore, each student must check their USC email regularly and make sure their account is not over quota, so new messages can be received.

### **Emergency Preparedness / Course Continuity**

If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* (<http://emergency.usc.edu/> or 213-740-9233) will provide information related to safety and course continuity. We expect that instruction will be continued by means of Blackboard, teleconferencing, and other technologies. Alternative assignments may be given if classes are canceled for prolonged periods. If you have not already done so, please register with TrojansAlert (<https://trojansalert.usc.edu/>) to facilitate communication during emergencies.

### **Students Who Are Repeating the Class**

The faculty and staff of this course are dedicated to helping you succeed academically. If you are repeating this class because you had to withdraw, earned an unsatisfactory grade, or need to



You are required to wear closed toe shoes, long pants and a knee-length lab coat. Lab coat and goggles will not be provided so please purchase these items before the semester. Participation points will be lost if proper PPE is not worn.

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.**

**Lab manual:**

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 their TA the lab manual before leaving the lab and obtain their signature. Lab manuals will be checked periodically throughout the semester.

**Post-lab assignments:**

During the semester you will have assignments, based on your lab experiments. Assignments are explained in the lab manual and more information can be found on Bb.

**Pre-lab assignments:**

You will have to read a peer-reviewed scientific paper and answer questions on Bb before you come to lab. You are expected to participate in a lab discussion of the paper with your lab instructor and your labmates.

**Lab reports:**

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.

**Lab report peer review and questions:**

Each student will review a sample lab report. Instructions will be posted on Blackboard once the semester starts.

**Lab exam:**

The cumulative lab exam will test your understanding of the topics, concepts and exercises covered during the semester.

**Missed Lab Exam:**

*It is your responsibility to be present on the days of the lab exam.* If you miss a lab exam due to a serious illness, you must contact the Lab Manager Brett Spatola ([spatola@usc.edu](mailto:spatola@usc.edu)) **within 48 hours** of the missed exam.

**Lab attendance:**

If you miss a scheduled lab exercise **due to illness or emergency**, please contact the lab manager to see whether it will be possible to make up the exercise by attending an alternative lab section or assignments. For logistical reasons, it will not be possible to make up a missed lab exercise after Friday afternoon of the week in question. Therefore, students with labs scheduled on Fridays will have little or no alternative should they miss lab unexpectedly. Only a few requests for alternative labs can be accommodated, because few sections have available space. Therefore, it is very important for you to attend your scheduled lab section.

Students who wish to miss a lab for observance of a religious holy day should be aware of the University's policy on such absences, published at: <http://orl.usc.edu/life/calendar/absences/>. Requests for such absences should be made by email addressed to the Lab Manager ([spatola@usc.edu](mailto:spatola@usc.edu)) at least 2 weeks in advance of the absence. If the absence is approved, the instructors will determine a reasonable accommodation for the student.

Student-athletes who must miss occasional labs for legitimate reasons should bring the SAAS excuse letter to the Lab Manager at least 2 weeks in advance so alternatives can be arranged.

Please note that **no lab make-ups will be allowed** during the week prior to a holiday, and for school-unrelated activities.

**Presentation:**

Detailed instructions for preparing your presentation, including how points will be assigned, will be provided on Blackboard (<https://blackboard.usc.edu/>).

**Lab scores:**

You can find scores for all of your lab assignments on Blackboard: <https://blackboard.usc.edu>. Your lab scores will be posted under your **LAB SECTION**. Be sure to check for additional postings on a regular basis. It is the student's responsibility to immediately notify his/her Lab Instructor or Lab Manager in the event of any mistakes, so please check your Blackboard scores weekly.

**Lab score normalization:**

The lab scores may be normalized at the end of the semester by the Lab Manager to correct for differences in grading between Lab Instructors (TAs). In this procedure, the mean total score of all students in each lab instructor's lab section is compared to the mean total score of the entire class and each student's score is adjusted.

**Lab schedule:**

Lab #	Dates	Topic	Assignment
	Aug 25 – Aug 26	<b>No labs</b>	
1	Sep 1 – Sep 2	Lab safety and syllabus	Lab safety labster; scientific reading and questions
2	Sep 8 – Sep 9	Macromolecules	Macromolecule labster; BSA standard curve post lab
3	Sep 15 – Sep 16	Experimental design/unknown macromolecules	Experimental design labster
4	Sep 22 – Sep 23	Enzymes/lactose digestion	Enzyme post-lab
5	Sep 29 – Sep 30	Photosynthesis/pigment extraction	Paper chromatography post-lab

6	Oct 6 – Oct 7	Fermentation	Peer review and questions
	Oct 13 – Oct 14	<b>Fall break (no labs)</b>	
7	Oct 20 – Oct 21	Cell membrane/transport	Cell membrane/transport labster
8	Oct 27 – Oct 28	DNA/restriction enzymes	Plasmid post-lab
9	Nov 3 – Nov 4	Blood typing/antibodies	Antibody labster
10	Nov 10 – Nov 11	<b>Veterans day (no labs)</b>	
11	Nov 17 – Nov 18	Lab exam	
	Nov 24 – Nov 25	<b>Thanksgiving break (no labs)</b>	
12	Dec 1 – Dec 2	Literature presentations	

### Some Dates to Remember

Aug 22	First day of Fall semester classes
Sep 9	Last day to register, add classes, and drop without a mark of “W” with tuition refund
Sep 5	Labor Day, University Holiday
Oct 6	Last day to drop without a mark of “W”, on transcript only, without tuition refund
Oct 13-14	Fall recess
Nov 11	Last day to drop with a mark of “W”
Nov 23-27	Thanksgiving Break
Dec 2	Last day of Fall semester classes
Dec 3-6	Study days
Dec 8	Lecture Exam 4, Dec 8 at 11:00 AM

### Final Thoughts

- Please forgive the length and detail of this syllabus. In a class like ours, with so many graded assignments and with grades so important to our students’ academic and career goals, we feel it is important for everyone to know exactly what to expect.
- Rules and disclaimers aside, we hope that you will enjoy our mutual exploration of cell biology and physiology. The mechanisms you will study are of fundamental importance in all living things, and highly relevant to the understanding of human health and disease. We instructors promise to apply our decades of experience in teaching and research, as well as some of the latest pedagogical techniques, to present an interesting and informative course, assign grades fairly, and prepare you well for future studies in biology.