

**Lecturers:** Dr. James Baxter and Dr. John Tarpey. There may be additional guest lecturers. Dr. Baxter's contact information is myxab2002@gmail.com. Dr. Tarpey's contact information is jtarpey@ccsf.edu. Erol Kepkep will handle administrative issues (enrollment/switches) at bio1a-summer-enrollment@berkeley.edu.

**Lecture:** Lectures are Monday and Wednesday from 10:30-12 PM in **245 Li Ka Shing**. Please read the assigned readings in Campbell and the lab manual **prior** to the lecture.

**Graduate Student Instructors:** GSI's will instruct the laboratory and discussion sections. Messages may be left in your GSI's mailbox in 2084 VLSB. Office hours are listed on page 4.

### TIME TABLE

1. Lectures and lab begin Monday 6/23. The Bio 1AL Lab lectures will be held in 245 Li Ka Shing on Monday and Wednesday from 10:30-12 PM. The 1AL Lab powerpoint slides are available at Replica Copy. They will also be available for downloading on bSpace. Webcasts of previous semesters are available at <http://webcast.berkeley.edu/courses/> but they are not meant to be a replacement for actually attending summer lectures.
2. **Email address:** We will routinely email students using bSpace. We use the email address that you have listed in the CalNet Directory. If it isn't the one you check, then you need to change it in the CalNet directory. If you have not received any emails yet, there is a problem with your listed email address. bSpace will be used frequently, check it!
3. **Switching sections:** You can see Erol Kepkep in 2083 VLSB or send him a message requesting to switch to bio1a-summer-enrollment@berkeley.edu. Students enrolled in both 1A and 1AL must switch BOTH lab and discussion sections, not just one and this must be done before the first lab meeting on Monday (June 23) or Tuesday (June 24). If you are in 1A only then you must be switched prior to the first discussion meeting on Tuesday June 24<sup>th</sup>.
4. **LABORATORY** begins Monday June 23<sup>rd</sup> and will cover Safety and Equipment. See pages 1-26 of your Laboratory Manual that you must read before your lab. If you cannot attend, email [bio1alab@berkeley.edu](mailto:bio1alab@berkeley.edu) or talk to the staff in 2083/2098 VLSB **beforehand**, required (i.e. medical documentation for illness). **Pre-labs are due at the START of lab.** Biology 1AL has a mandatory course material fee of \$50 which will be assessed via CARS (at the end of the 3<sup>rd</sup> week of classes).
5. **Attendance:** You must attend your assigned lab. If you do not attend the first week your spot will be given away. It may be possible to reschedule lab, but only when absolutely necessary (sleeping in and missing your lab does not count). To reschedule you must e-mail [bio1alab@berkeley.edu](mailto:bio1alab@berkeley.edu). **NOTE: When papers, etc. are returned it is your responsibility to pick them up. If you do not attend, then you must contact your GSI and get the papers from them, at their convenience.**
6. **EXAMS:** The first lab exam is Monday **July 21<sup>st</sup> (10:30-12 PM)**. Room(s) to be arranged. Your second lab exam will be held on Monday **August 11<sup>th</sup> (10:30-12 PM)**. There are no make-up lab exams, nor may you switch from your assigned section. Exam handouts will be given for each exam. There are two scheduled lab reviews. Exams cannot be taken early, nor later than the scheduled time unless you are a DSP student. In the case of disruption of an exam (fire alarm, bomb threat, etc.) alternative arrangements have been made. These may include moving the exam to another location, and/or extending the time, and/or arranging an alternative exam date or format.

7. **bSpace:** Announcements and some handouts will be available on bSpace along with your scores on individual assignments. For difficulties accessing bSpace or for access (non-UCB students) email Erol at bio1a-summer-enrollment@berkeley.edu for access.
8. **Changes to this syllabus and grading criteria may occur. If so, you will be informed.**

### **LAB MATERIALS**

**Required textbook:** Campbell, Biology, 9<sup>th</sup> or 10<sup>th</sup> edition. **Bio 1A & Bio 1B will NOT be using the Campbell book next year.**

**Required Lab Manual:** The required, Summer 2014 lab manual is available at Replica Copy or on-line at bSpace.

**Required pre-labs and worksheets.** These are available on bSpace or at Replica Copy, at 2140 Oxford. It is actually much cheaper and faster to buy a set instead of printing them.

**Exam Reader:** An exam reader with past lab exams is available at Replica Copy.

**Required Lab Reader:** A color reader for the first half of the labs is available at Replica Copy. It must be pre-ordered using the url: <http://www.replicacopy.com/>. Handouts and images will also be on bSpace. It is probably cheaper and faster to purchase it from Replica Copy.

**GRADING PROCEDURE:** Grades will be determined numerically as follows:

Laboratory & Discussion as follows:		
Lab Exam 1, 7/21 in the 10:30 lecture (covering labs 1 - 7)		100 pts
Lab Exam 2, 8/11 in the 10:30 lecture (covering labs 8 -11 )		64 pts
Lab Quizzes - 5 points given at the start of each lab (11 labs x 5 pts). The lowest score will be dropped, hence 10 X 5.		50 pts

Total: 214 points

**Changes affecting the point distribution, the reading schedule, or other aspects of the syllabus may occur during the semester. We will inform you of any changes.**

Grades are based upon the points that you **EARN** (not needs or wants). Guaranteed grades are:

A (some form of an A)	100-90%	D (some form of a D)	69-60%
B (some form of a B)	89-80%	F	59-00%
C (some form of a C)	79-70%		

However, in the event that some examinations have been unusually difficult, the cut offs for letter grades may be lowered (but only by a few percentage points, and as deemed necessary). Historically around 50% of the class **EARN** A's and B's.

**LAB GRADES:** Quiz scores will be adjusted as necessary. They will be adjusted based upon lab exam 1 & 2 scores and will be adjusted to the **easiest** of the 4 sections. More information about this is available on our website. After making the adjustments the total points is then determined for each student. We look at 90% of the total points and see what % of the students have earned a guaranteed A+ / A / A-. If there are fewer than 22% we then typically lower the number of points required for some form of an A (since it is the lower end it would be an A-). We continue to do that for each guaranteed grade range, B, C and D. If need be, we lower the total number of points necessary for a particular grade. We usually give out about 20% A's, 30% B's, 20% C's, 10% D's and 10% F's. We then go back and make the exact cut-offs for each form of a grade (eg. C+, C, C-). We then look to at each student's score to determine if they are within a few points of the next grade. If so, we then determine if they should be "bumped" to the next grade. The most important criteria for this "bump" in the summer are attendance and participation in lecture/lab/discussion and pre-lab & worksheet averages. On average about

50% of the students get bumped, 50% do not. Note that the class is curved, if necessary. But we would rather that you strive to earn the guaranteed percentages, instead of us having to lower the percentage cutoffs for given grades. Changes to the grade distribution are NOT possible as the distribution is effectively set by the department of Molecular Cell Biology. Only minimal changes of 1-3% are up to the discretion of the faculty.

**I GRADES:** The "incomplete" grade is assigned only if the student has completed at least one-half of the material with a passing grade of C- or better, and the student presents documented medical evidence of their inability to complete the course (UC regulations). The student assigned an I grade must complete the work before the first day of classes in the Spring Semester of 2015, without including the course for units on the study list, or the I lapses to an F.

**CHEATING:** The rare student found cheating will be reported to the University for review for dismissal. An automatic 0 will be given on that assignment. **Cheating is not tolerated.** This includes ALL work—including pre-labs! Students repeating the class must do the work this semester and cannot turn in work from previous semesters. **DON'T CHEAT, it isn't worth it because we will take the time to submit the case to the student conduct office.**

**RECOMMENDATIONS:** It is probably better for you to obtain letters from upper division classes, in the future, but we are willing to write letters. See our website for details.

## HOW TO DO WELL

1. Come to lecture and take notes. Review them. Read the assigned readings before lecture.
2. Keep up with the material. Seek help if needed.
3. Clarify topics you do not understand by
  - a. Coming to office hours and asking questions.
  - b. Forming a study group.
  - c. Doing the reading.
  - d. Emailing questions. This is probably the least effective method.
4. Use the exam reader, making sure you understand the reasoning behind the answers.
5. Be prepared for lab and be prepared to think.

## **BIOLOGY 1A STUDY RESOURCES**

Please take advantage of these resources. Additional opportunities such as reviews may also be held. Further information is available in the lab manual and the Exam Reader.

**Office Hours—attend them. They typically are very helpful.**

**Student Learning Center (SLC, 189 Chavez Student Center):** The SLC may offer student-led study groups and tutoring. See their website for more information ([slc.berkeley.edu](http://slc.berkeley.edu)).

**STUDY GROUPS:** These are usually a great way to learn. I encourage you to form study groups, either within your lab or with students from other sections.

**Reading:** It helps to read before the lab lecture. The lab lecture does not replace reading.

**Tutors (fee):** Formal tutoring (variable fees) from individuals may be available. Contact Mike.

**URLs:** <http://mcb.berkeley.edu/courses/bio1a>, <http://webcast.berkeley.edu/courses/>

(Lab rooms are 2095 VLSB and 2097 VLSB).

Lab	Time	GSI	email	Room	UGSI
325	M/W 3:00– 6:00 PM	Lew, Helen	<a href="mailto:h_lew@yahoo.com">h_lew@yahoo.com</a>	2095	
327	M/W 3:00– 6:00 PM	Takata, Steve	<a href="mailto:s_takata@yahoo.com">s_takata@yahoo.com</a>	2097	
415	T/Th 9:00–12:00 PM	Lew, Helen	<a href="mailto:h_lew@yahoo.com">h_lew@yahoo.com</a>	2095	
417	T/Th 9:00–12:00 PM	Takata, Steve	<a href="mailto:s_takata@yahoo.com">s_takata@yahoo.com</a>	2097	
		Meighan, Mike	<a href="mailto:mmeighan@berkeley.edu">mmeighan@berkeley.edu</a>		

## Discussion Information

Disc	Time	GSI	email	Room
105	T/Th 3:00- 4:00 PM	Lew, Helen	h_lew@yahoo.com	160 Dwinelle
107	T/Th 3:00- 4:00 PM	Takata, Steve	s_takata@yahoo.com	219 Dwinelle

Office hours are located in 2084 VLSB unless indicated otherwise.

	Monday	Tuesday	Wednesday	Thursday
9:30-10:30			Dr. Lew	
11-12		1A Lecturer		1A Lecturer
2-3	1AL Lecturer,		1AL Lecturer.	
6-7	Dr. Takata			

## Reading assignments are from Campbell, Biology, 9<sup>th</sup> or 10<sup>th</sup> edition.

Date	Lect #	Lecture Topic	Campbell 9 <sup>th</sup> edition. 10 <sup>th</sup> ed	Lab Manual (Sum 2014)
6/23	1	Lab 1: Intro, Safety, Equipment.	Ch. 1, Ch. 6.	Pages 1-28.
6/25	2	Lab 2: Cells and <i>Vibrio</i> isolation.	Ch. 6, 26.3-4, 27.1, 28.1-2. 9 <sup>th</sup> ed: Ciliates 584-585, Green alga & Amoebozoans 591-594. 10 <sup>th</sup> ed: Ciliates 600-01, Green alga & Amoebozoans 603-605.	Pages 29-42, 43-56* (focus on 43-44).
6/30	3	Lab 3 Enzymes, <i>Vibrio</i> streaking.	Ch. 8.	Pages 57-76, 43-56* (focus on 46).
7/2		Lab 4: Photosynthesis, <i>Vibrio</i> streaking.	Ch. 10	Pages 77-92, 43-56* (focus on 46).
7/7	4	Lab 5: Complementation I, Genetics & Mol. Biol. I, PCR.	Ch 12.1 & 2, & Ch. 13 and Ch. 20.1.	Pages 101-110, 43-56* 93-100**, (*focus on page 47-48, focus on pages 93-95).
7/9	5	Lab 6: Complementation II PCR analysis and DNA electrophoresis, GMB. II.	Pages Ch. 13-17*, and Ch. 20.1 2. (focus on Ch. 13, you will eventually need all of the chapters).	Pages 111-124, 43-56*, 93-100**. (*focus on pages 48-51, ** p. 96-98).
7/14	6	Lab 7: Complementation III, Bioinformatics	Ch. 21.1-3, 21.6.	Pages 125-128 + on-line, 43-56*, 93-100**, (*focus pages 51-56, **99-100).
7/16	7	Lab exam 1 Review		
7/21		Lab Exam 1 during lecture time.	See handout.	
7/23		Lab 8: Anatomy.	Ch. 32.1-3. 40.1, 41.1-3, 42.1-3, 42.5, 44.1-3, 46.1, 50.5.	Pages 129-148
7/28		Lab 10: Invertebrates I.	Ch. 32 & Ch. 33.1-3.	Pages 149-164.
7/30	10	Lab 11 Invertebrates II.	Ch. 33.4-5.	Pages 165--178.
8/4		Lab 12 Reproduction and Development.	Ch. 46 & 47	Pages 179-189.
8/6	12	Lab exam 2 Review		
8/11	13	Lab Exam 2 during lecture time.		