

**Lecturer:** Mike Meighan from the Department of MCB.

**Lecture:** Lectures are Monday from 5-6:30 PM in 1 Pimentel. In addition they will be simulcast in 10 Evans and **webcast**. Neither Webcast quality, nor their availability can be guaranteed. Read the assigned readings, both in Campbell and the lab manual, prior to the lab lecture. Lecture begins Monday September 2<sup>nd</sup> and labs begin Tuesday September 3<sup>rd</sup>. NOTE: Due to the holiday on Sept. 2<sup>nd</sup> you will need to watch the webcast from Spring 2013 (see below). The first lab will cover Safety and Equipment. The various files will be available via bSpace (or purchase from Replica Copy). A completed pre-lab will be due at the start of lab and a 5 point quiz will be given at the start of lab. **COME PREPARED.**

**Contact information/office hours:** Mike Meighan. 642-4110, 2088 VLSB, mailbox outside 2088 VLSB, e-mail is {[mmeighan@berkeley.edu](mailto:mmeighan@berkeley.edu)}. Scheduled Office hours are M 11-12, W 10-11, 1-2 and by appointment\*. I am available for advice on study habits, techniques, and on matters of scheduling, laboratory operations, exams, etc.. \* Office hours and location may be revised.

**Graduate Student Instructors:** The GSI's instruct the laboratory sections. A GSI will be available in the GSI office; 2084 VLSB on Monday from 2-4 PM and typically one hour before the start of each lab. Messages may be left in your GSI's mailbox in 2084 VLSB.

**GSI Office Hours:** M 2-4, T 8:<sup>30</sup>-9:<sup>30</sup>, 1-2, 5:<sup>30</sup>-6:<sup>30</sup>, W 1-2, 4-6:<sup>30</sup>, Th. 8:<sup>30</sup>-9:<sup>30</sup>, 1-2, 5:<sup>30</sup>-6:<sup>30</sup> PM, F 1-2. (may change, see bSpace).

### TIME TABLE

Drop deadline is Sept. 6<sup>th</sup>. The deadline to change grading option is Sept. 27<sup>th</sup>.

1. **LABORATORY:** Lecture begins Monday Sept. 2<sup>nd</sup> and labs begin Tuesday Sept. 3<sup>rd</sup>. The first lab will cover Safety and Equipment. The various files will be available via bSpace (or purchase from Replica Copy). Watch the webcast from Spring 2013, lecture 1 because Sept. 2<sup>nd</sup> is a holiday. (Webcast.berkeley.edu, archived semester spring 2013, Lecture 1)
2. **Email address:** We will routinely email students about once a week. We will use the email address 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. **ADDING: Some lab sections have space. See and use TeleBears.** For more information click under enrollment information on our URL: <http://mcb.berkeley.edu/courses/bio1a/>.
4. **Attendance:** You must attend your scheduled lab. However it may be possible to reschedule, a particular lab during the same week (but only if absolutely necessary, see "Reschedule lab" #6).
5. **SWITCHING LAB (Permanent Switch):** On bSpace click on "Click Here to Switch Lab Sections" for a link to a page with instructions on how to switch lab or submit a lab switch request form. You need to switch sections via TeleBears (Friday 8/30 midnight deadline).
6. **Emergency Reschedule of a lab:** You must attend your scheduled lab. As such avoid scheduled conflicts (exams, trips). If current conflicts exist, then request a permanent switch. Avoid future conflicts! If an unavoidable or unexpected conflict or illness should occur (that directly interferes with your lab), it may be possible to reschedule your lab for that week. Rescheduling will only be approved **when absolutely necessary**, the scheduled conflict or illness is verifiable and unavoidable, and we have space to make the switch.

To reschedule you may either check with the staff in 2083B VLSB, or send an email to [bio1alab@berkeley.edu](mailto:bio1alab@berkeley.edu) with your full name, your enrolled lab section, reason for the rescheduling, and a list of other lab times during the same week (see page 3 for times) that you can make. We will usually email you back within one business day, the lab time and room you will attend for your make up lab. In addition you will need to pick up a note from 2083B VLSB to give to the GSI teaching your rescheduled lab.

7. **LABORATORY** begins Tuesday Sept. 3<sup>rd</sup> and will cover Safety and Equipment. See the syllabus for assigned reading. You must watch the webcast from Spring 2013 for the first lab due to the Sept. 2<sup>nd</sup> holiday.
8. Lab Exams: **Lab exam 1: Th. Oct 24<sup>th</sup> from 7:30-9:30 PM. This exam will be only multiple-choice format (no short answer).** Room(s) to be arranged. **Lab Exam 2 will be held Wednesday Dec. 4<sup>th</sup> from 8:20-10:00 PM.** There are no make-up lab exams. Exam handouts will be given for each exam. 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.
9. **Assignments, exams: When papers are returned it is your responsibility to pick them up.**

### LAB MATERIALS

**Required textbook: Campbell Biology, 9<sup>th</sup> edition.** The textbook is a custom edition for UCB and includes access to Mastering Biology. You will need the 9<sup>th</sup> edition. The book is essentially identical to the normal 9<sup>th</sup> edition except for the cover page and the fact that the price has been **reduced** considerably.

**Required Lab Manual:** Download from bSpace or purchase from Replica Copy, at 2138 Oxford.

**Required pre-labs and worksheets.** Available on our website or at Replica Copy, at 2138 Oxford. The cost is about \$4.00.

**Exam Reader:** An exam reader with exams from past semesters is available at Replica Copy. The cost is about \$3.00.

**Required Course Notes:** Handouts and images will be available on bSpace by 5 PM on the Friday preceding an upcoming Monday lecture. They are also available from purchase at Replica Copy.

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

Laboratory & Discussion as follows:	
Lab Exam 1, 10/24 7:30-9:30 PM (covering labs 1 - 7)	100 pt's.
Lab Exam 2, 12/4 8:20- 10 PM- (covering labs 8 - 11)	64 pt's.
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 pt's.

Total: 214 pt's.

**Changes to the syllabus may occur. We will inform you of any changes.**

Grades are based upon **EARNED** points (not upon needs or wants). The guaranteed grades are:

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

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 over 60% of the class **EARN** A's and B's.

**LAB GRADE ADJUSTMENTS:** The quiz scores will be adjusted as necessary for each section. This will insure that no section has an advantage (higher quiz scores) nor has a disadvantage (lower quiz scores). They will be adjusted based upon how the entire lab section does on lab exam 1 and lab exam 2. Points will be adjusted to lab sections such that all sections will be adjusted to the **easiest** of the sections.

**I GRADES:** UC regulations require that a 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 on schedule. The student assigned an I grade must complete the work before the first day of classes in the Fall Semester of 2014, without including the course for units on the study list, or the I lapses to an F.

**CHEATING:** UC Berkeley has adopted the following Honor Code: "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others". As a UCB student you pledge to adhere to this code. The rare student found cheating in the course will be reported to the University. The student will be given an F course grade. Cheating is not tolerated. This includes **ALL** work—iClicker, homework assignments, pre-labs, worksheets, quizzes, and exams! Students repeating the class must do the work this semester and cannot turn in work from previous semesters.

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

## **HOW TO DO WELL**

1. Come to lecture and take notes. Make sure you review them. Do the reading before lecture.
2. Keep up with the material. Do not fall behind. Seek help if needed. Do the reading before lecture and lab – that includes the lab manual and Campbell.
3. Clarify topics you do not understand by coming to office hours, forming a study group, or emailing your questions.
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**

The following is a partial list. Please take advantage of these resources. Additional opportunities such as faculty & graduate student reviews may also occur during the semester. Further information is available in the lab manual and the Exam Reader.

**Lecturer's Office Hr's:** Office hours are typically held in 2084 or 2088 VLSB. M 11-12 AM, W 1-2 PM. Typically additional office hours will be held prior to exams as announced.

**Graduate Student Instructors Office Hr's (2084 VLSB):** Usually M 2-4, Tuesday 8:30-9:30, 1-2, 5:30-6:30, Wed 1-2, 5:30-6:30, Th. 8:30-9:30, Th. 1-2 PM, F 1-2 PM. Refer to bSpace for up to date hours.

**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.

**Tutor Services (fee):** Formal tutoring (variable fees) from individuals may be available as the semester progresses. Contact Mike.

## Room Assignments

	Tues.	VLSB			Wed.	VLSB			Th.	VLSB			Fr.	VLSB
213	9 <sup>30</sup> -12 <sup>30</sup>	2113		313	9-12	2113		413	9 <sup>30</sup> -12 <sup>30</sup>	2113		513	9-12	2113
215	9 <sup>30</sup> -12 <sup>30</sup>	2095		315	9-12	2095		415	9 <sup>30</sup> -12 <sup>30</sup>	2095		515	9-12	2095
217	9 <sup>30</sup> -12 <sup>30</sup>	2097		317	9-12	2097		417	9 <sup>30</sup> -12 <sup>30</sup>	2097		517	9-12	2097
223	2 - 5	2113		323	2-5	2113		423	2-5	2113		<del>523</del>	<del>2-5</del>	<del>2113</del>
225	2 - 5	2095		325	2-5	2095		425	2-5	2095		525	2-5	2095
227	2 - 5	2097		327	2-5	2097		427	2-5	2097		527	2-5	2097
235	6 <sup>30</sup> - 9 <sup>30</sup>	2095												
237	6 <sup>30</sup> - 9 <sup>30</sup>	2097												

Please refer to the Table of Contents in the Spring Lab Manual for more detailed information.

<i>Date</i>	<i>Lecture Topic</i>	<i>Campbell 9<sup>th</sup> edition.</i>	<i>Lab Manual (Spring 2013)</i>
Week 1 9/2	<b>Lab 1 Lecture: Safety, Equipment. Watch webcast from Spring 2013.</b>	Ch. 1, Ch. 6., 27.1.	Pages 1-28.
<b>Week 2 9/9-13</b>	<b>Lab 2: Cells, <i>Vibrio</i> isolation.</b>	Ch. 6, pages 94-97, 547-555, 577-581, 584-585, 591-594, 596	Pages 29-44, 45-58* (focus on 45-48).
Week 3 9/16-20	<b>Lab 3: Enzymes, Microbiology-<i>Vibrio</i> streaking.</b>	Ch. 6, pages 94-97, 547-555, 577-581, 584-585, 591-594, 596	Pages 59-80, 45-58* (focus on 48).
Week 4 9/23-27	<b>Lab 4: Photosynthesis and <i>Vibrio</i> streaking,</b>	Ch. 10	Pages 81-96, 45-58* (focus on 48).
Week 5 9/30-10/4	<b>Lab 5: Genetics &amp; Mol. Biol. I, Complementation I, and PCR.</b>	Pages 228-238, 403-405 Chs 12 & 13.	Pages 105-116, 45-58*, 97-104**, (*focus on page 49-50, focus on pages 97-99)
Week 6 10/7-11	<b>Lab 6: GMB. II, Complementation II, PCR analysis and DNA electrophoresis.</b>	Pages Ch. 13-17*, Ch 20.1, 20.2. (focus on Ch. 13, you will eventually need all of the chapters).	Pages 115-128, 45-58*, 97-104**. (*focus on pages 50-53, ** p. 100-102)
Week 7 10/14-18	<b>Lab 7: Bioinformatics and Complementation III.</b>	Pages 8-11, 429-434	Pages 129-143, 53-58, 97-104*, (*focus pages 100-104)
Week 8 10/21	Monday – Review, LAB EXAM 1 on Thursday 7:30-9:30 PM	See handout.	<b>Lab Exam 1 Th 10/ 24</b>
<b>10/24</b>	Thursday		<b>10/ 24 7:30-9:30 PM (night)</b>
Week 9 10/28-11/1	<b>Lab 8: Anatomy.</b>	Ch. 32.1-3. 40.1, 41.1-3, 42.1-3, 42.5, 44.1-3, 46.1, 50.5.	Pages 153-172
Week 10 11/4-8	<b>Lab 9: Invertebrates I.</b>	Ch. 33.	Pages 173-188.
11/11-15	<b>Lab 10 Invertebrates II. Watch webcast from Spring 2013.</b>	Pages 684-694	Pages 189-201
Week 12 11/18-22	<b>Lab 11 Reproduction and Development.</b>	Ch. 46 & 47	Pages 203-214
12/4	12/2 = Lect. Review = Q & A. 12/4 Lab exam 2 on Wed.	See Exam Handout	<b>Lab Exam II 8:20-10 PM on Wednesday night – December 4<sup>th</sup>. Be on time.</b>