

Faculty: Dr. Pauly and Dr. Fischer are from the Department of Plant and Microbial Biology. Dr. Weisblat is from the Department of Molecular Cell Biology. The faculty will hold office hours (while they are lecturing) as follows:

Held in 2084 VLSB**BY APPOINTMENT**

Markus Pauly	MW 9-10, Th 2-3	2-1722, Calvin Lab, mpauly69@berkeley.edu http://pmb.berkeley.edu/profile/mpauly#a2
Robert Fischer	MWF 9-10, Th 2-3	2-1314, 231A Koshland, rfischer@berkeley.edu . http://epmb.berkeley.edu:8080/facPage/dispFP.php?I=8 .
David Weisblat	MW 9-10, Th 2-3	2-8309, 385 LSA, weisblat@berkeley.edu http://mcb.berkeley.edu/index.php?option=com_mcbfaculty&name=weisblatd

Office hours are located in 2084 VLSB unless otherwise

Course Coordinator: Mike Meighan. 2-4110, 2088 VLSB, mailbox in 2084 VLSB (and another one in the hall outside 2088 VLSB), e-mail is {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, course content, and on matters of scheduling, laboratory operations, exams, etc.. Typically any administrative or grading issues should be addressed to the course coordinator.

Graduate Student Instructors: The GSI's will instruct the discussion sections. A GSI will be available in the GSI office; 2084 VLSB, between 10-2, M-F. Messages may be left in your GSI's mailbox in 2084 VLSB.

Please turn off cell phones prior to the start of lecture.

TIME TABLE

The drop deadline is Sept. 6th. The deadline to change grading option from P/NP to letter grade is September 27th.

- Lectures begin August 30th and end on December 6th. Lectures are held in 1 Pimentel from 8-9 AM. Lectures may be available on the web (<http://webcast.berkeley.edu/courses/>). **They are also simulcast in 10 Evans & (60 Evans if necessary).** Lecture handouts are posted on bSpace. No note taking service is authorized.
- Email address:** We will routinely email the 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!
- ADDING: Use Tele-BEARS.** To add Bio 1A, you must be enrolled in Bio 1AL or be exempt from simultaneous enrollment. For more information click under enrollment information on our url: <http://mcb.berkeley.edu/courses/bio1a/>.
- SWITCHING DISCUSSION/LAB (Permanent Switch):** On bSpace click on "Click Here to Switch Discussion Sections" for a link to a page with instructions on how to switch sections via TeleBears. **You need to do your best to work out your discussion assignment by the first week.**
- DISCUSSION begins Tuesday, 9/3.** (No discussion on Monday 9/2.) **Attendance will be taken starting Monday September 9th.** **You must attend your assigned discussion section.**
- LABORATORY.** Lab lecture begins Monday September 2nd (you must watch webcast from Spring 2013) and labs begin Tuesday September 3rd. The first lab covers Safety, and Equipment. The lab exercise (lab manual) is available on bSpace and at Replica Copy.

Lab will be held Tuesday through Friday. Lab lecture on September 9th will cover the second lab, Cells and Sea water plating.

7. **Attendance:** You are required to attend the lab AND discussion sections in which you are enrolled (not waitlisted). For further lab information, see the lab syllabus.
8. **Lecture examinations are: Thursday Oct. 3rd from 7:30 - 8:30 PM (evening exam). Monday Nov. 4th from 8-9 AM (morning exam).** There are no make-up exams. A handout will be given in lecture concerning each exam.
9. **Final Examination: Monday Dec. 16th at 7-10 PM.** Room(s) to be arranged. The final exam will be comprehensive and will cover all lectures. You will receive a handout in lecture regarding specific details about the final (point distribution, weighting, etc.).
10. 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 (possibly essay).
11. Lab exams are scheduled as follows: **First lab exam, Thursday night, October 24th (7:30 PM)** Room(s) to be arranged. **Your second Lab Exam will be held on Wednesday night December 4th (7:30 PM).** There are no make-up lab exams. A handout will be available on-line concerning each exam – room assignments, material covered, etc. There is NO additional final exam for the lab class.
12. Assignments, exams: When papers, etc. are returned it is your responsibility to pick them up. If you do not attend discussion, then you must contact your GSI and get the papers from them, at their convenience. Papers not picked up after 3 weeks may be discarded.

LECTURE MATERIALS:

Required textbook: Campbell Biology, 9th edition including Mastering Biology. The textbook is a custom edition for UCB and includes access to Mastering Biology. You will need the 9th edition. The book is identical to the normal 9th edition except for the cover page. You also need Mastering Biology for the homework assignments.

iClicker is required. You must have your own individual iClicker.

Required Course Reader(s): Required course readers will be available on bSpace and most likely also available at Replica Copy.

Exam Reader: An exam reader with exams from past semesters is available at Replica Copy. The cost is about \$4.00.

GRADING PROCEDURE: Grades will be determined numerically as follows:

Midterm Examinations (2 x 100)	200 pt's.
Final Exam	300 pt's.
iClicker (3 X 12), Homework via Mastering Biology (3 X 24)	108 pt's.
Total: 608 pt's.	

See first day announcement on bSpace. You will be informed of any assignments or additional points on exams.

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. Letter grades are based upon EARNED points (not based upon needs or wants). They are guaranteed as follows.

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 40-50% of the class **EARN A's and B's**.

iClicker points – Each question is worth ½ pt for participation and an additional ½ pt for the correct answer. You can earn up to a MAXIMUM of 12 points per lecturer. Each lecturer will attempt to have at least 14 iClicker questions for their section. If for some reason, there aren't enough iClicker points then any remaining points will be added to the final. **It is your responsibility to register your iClicker and provide a functional iClicker.**

Homework points. A distribution of scores will be generated and a grade scale from 0 to 14 points will be assigned. The maximum possible number of points will be 12. Thus it is possible to miss one or two assignments and still end up with the maximum. No extensions of deadlines. Each assignment is due by 8 AM by the start of the next lecture. The only exceptions are the 8/30 lecture will be due Friday 9/6 by 8 AM (along with of course the Wed 9/4 lecture).

I GRADES: In keeping with University regulations, the grade of "incomplete" is assigned to a student only if (1) the student has completed at least one-half of the material with a passing grade of C or better and (2) the student presents documented medical evidence of inability to complete the course on schedule. The student assigned an I grade in Biology 1A 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!

RECOMMENDATIONS: It is probably better for you to obtain letters from upper division classes, in the future, but we are willing to write letters. Your GSI will write an initial draft of the letter (they know you the best). The course coordinator will edit the letter and a faculty member will sign the edited letter. The course coordinator will then forward your letter to the Placement center. This takes time--at least two weeks

HOW TO DO WELL

1. Come to lectures and take notes. Make sure you review them.
2. Keep up with the material. It is essential that you do not fall behind. Seek help if needed.
3. Clarify topics you do not understand by
 - a. Coming to faculty office hours and ask questions.
 - b. Coming to GSI office hours and ask questions.
 - c. Getting into a study group.
 - d. Reading the book.
 - e. Using email to ask the faculty questions.
4. Use the exam reader, making sure you understand the reasoning behind the answers.
5. Come to the exam review sessions and ask questions.
6. Come to discussion with questions.

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 in the exam reader.

Faculty Office Hr's: Office hours are typically held in 2084 VLSB. Faculty will announce office hours and any changes to them.

Academic Coordinator Office Hr's (2088 VLSB): To be announced. Refer to bSpace for up to date hours.

Graduate Student Instructors Office Hr's (2084 VLSB): Usually M- F, 10 - 2. Refer to bSpace for up to date hours.

Student Learning Center (SLC, 189 Chavez Student Center): The SLC offers student-led study groups and tutoring. Study groups require registration that can be done on SLC's webpage (slc.berkeley.edu). Tutoring is generally available MTWTh 9-4 and F 9-12. See the SLC's webpage for more information. **Note:** None of the SLC's services are a substitute for lecture, discussion, reading the text, or attending Bio 1A office hours. However, they are an excellent way to get additional assistance and feedback from trained undergraduate tutors who want to assist you in meeting your academic goals.

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

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

Biology 1A Web Sites: mostly bSpace and <http://mcb.berkeley.edu/courses/bio1a>.

Schedule of Classes

Section	Disc. Time	Disc. Room		Section	Disc. Time	Disc. Room
101	M 11-12 PM	2066 VLSB		201	T 11-12 PM	3102 Etcheverry
102	M 11-12 PM	123 Wheeler		202	T 11-12 PM	110 Barker
103	M 11-12 PM	2062 VLSB		203	T 11-12 PM	105 Latimer
104	M 11-12 PM	2038 VLSB		204	T 1- 2 PM	2032 VLSB
105	M 12- 1 PM	2030 VLSB		205	T 1- 2 PM	2062 VLSB
106	M 12- 1 PM	2038 VLSB		206	T 1- 2 PM	2038 VLSB
107	M 12- 1 PM	2032 VLSB		207	T 2- 3 PM	228 Dwinelle
108	M 1- 2 PM	2030 VLSB		208	T 2- 3 PM	2066 VLSB
109	M 1- 2 PM	2038 VLSB		209	T 2- 3 PM	2070 VLSB
110	M 1- 2 PM	2032 VLSB		210	T 3- 4 PM	126 Barrows
111	M 2- 3 PM	2030 VLSB		211	T 4- 5 PM	54 Barrows
112	M 2- 3 PM	2038 VLSB		212	T 4- 5 PM	103 GPB
113	M 2- 3 PM	2032 VLSB				
114	M 3- 4 PM	2070 VLSB				
115	M 3- 4 PM	2066 VLSB				
116	M 3- 4 PM	2038 VLSB				
117	M 4- 5 PM	87 Dwinelle				
118	M 4- 5 PM	2038 VLSB				

Biology 1A Calendar, Fall 2013

Lectures 1-13 Professor Pauley, Lectures 14-26 Professor Fischer, Lectures 27-39 Professor Weisblat.

All readings are from the 9th edition of **Campbell Biology**.

Date	Lect #	Lecture Topic	Reading	Bio 1AL Lab, Discussion
Aug. 30	1	Atoms and water: key concepts	Ch. 2 & 3	
Sept. 2		HOLIDAY		Safety, Equipment. Watch the webcast. Lab held.
Sept. 4	2	Carbon Chemistry and Macromolecules	Chs. 4 & 5	
Sept. 6	3	Structure and function: Carbohydrates, Lipids, proteins, Nucleic acids	Ch 5: 69-91	
		*Deadline to drop = Sept. 6		
Sept. 9	4	Cell structure, part 1	Ch 6: 94-109	Cells, <i>Vibrio</i> isolation
Sept. 11	5	Cell structure, part 2	Ch 6: 125-141	
Sept. 13	6	Membrane structure and function	Ch 7: 125-141	
		*Deadline to add without a fee = Sept. 10.		
Sept. 16	7	Metabolism: energetics	Ch 8: 142-151	Enzymes, <i>Vibrio</i> isolation.
Sept. 18	8	Metabolism: enzymes	Ch 8: 152-162	
Sept. 20	9	Cellular respiration: glycolysis, fermentation.	Ch 9: 163-193, 177-179	
Sept. 23	10	Cellular respiration: TCA, oxidative phosphory	Ch 9: 170-177, 179-183	Photosynthesis, <i>Vibrio</i> Isolation.
Sept. 25	11	Photosynthesis: light	Ch 10: 184-197	
Sept. 27*	12	Photosynthesis: C-fixation (Evaluation 15')	Ch 10: 198-205	
		*Deadline to add, change from P/NP to letter grade.		
Sept. 30	13	Cell cycle	Ch 12: 228-245	Complementation I, PCR & GMB I.
Oct. 2	14	Meiosis – How Gametes Inherit Genomes.	Ch 13	
Oct. 3		MIDTERM 1: Lectures 1-13. Thursday night exam.	See handout.	Th Exam 7:30- 8:30 PM. Lectures 1-13
Oct. 4	15	The Laws that Govern the Inheritance of Traits - Segregation of Alleles.	Ch 14	
Oct. 7	16	How Genes Organized on Chromosomes – Linkage, Recombination, Mapping.	Ch 15	Complementation II, PCR analysis & GMB II.
Oct. 9	17	Genes Are Made Of DNA.	Ch 16	
Oct. 11	18	Gene Expression I - DNA is transcribed into RNA.	Ch 17	
Oct. 14	19	Gene Expression II – RNA is translated into protein.	Ch 17	Complementation III & Bioinformatics.
Oct. 16	20	Regulation of Gene Expression	Ch 18 (351-366)	
Oct. 18	21	Regulation of Gene Expression	Ch 18 (351-366)	
Oct. 21	22	Viruses and Transposons	Ch 19, Ch 21 (434-436)	Lecture Exam Review
Oct. 23	23	Eukaryote genome structure and evolution	Ch 21	Th 10/24 Lab exam 1: 7:30- 9:30 PM.
Oct. 25	24	Chromatin	Ch 18 (357-358, 362), Ch 21	

Date	Lect #	Lecture Topic	Reading	Bio 1AL Lab, Discussion
Oct. 28	25	How To Isolate, Study and Use Genes.	Ch 20	Rat Anatomy.
Oct. 30	26	Genetic Regulation of Development.	Ch 35 (755-766, 760-761)	
Nov. 1*	27	Emergent Properties: Multi-cellularity	Ch 40	
		* grading deadline (P/NP). See an adviser.		
Nov. 4		MIDTERM 2: Lectures 14-26.	See handout.	Invert I.
Nov. 6	28	Nutrition	Ch 41	
Nov. 8	29	Circulation & Gas Exchange	Ch 42	
Nov. 11		HOLIDAY		Invert II.
Nov. 13	30	Immune System	Ch 43	
Nov. 15	31	Osmoregulation	Ch 44	
Nov. 18	32	Endocrine System	Ch 11 and 45	Reproduction & development.
Nov. 20	33	Reproduction	Ch 46	
Nov. 22	34	Development	Ch 47	
Nov. 25	35	Evolutionary Development	Ch 47	No lab.
Nov. 27	36	Cellular Neurobiology	Ch 48	
Nov. 29		HOLIDAY		
Dec. 2	37	Sensory and Motor Systems	Ch 50	Q & A review:
Dec. 4	38	Nervous System Structure and Function	Ch 49/51	Lab exam 2: Wed 8:20-10 PM
Dec. 6	39	Review		
Dec. 16		FINAL EXAM 7-10 PM	Exam Handout	

Note: look at the final exam handout carefully for your assigned seating within a section. It will be critical that you take your place quickly since there is only 30 minutes between exams and there will be assigned seating.