

MCB 102 Spring 2016 General Syllabus
M-W-F 11am to 12pm Wheeler Auditorium

Section 1 (January 20- February 9) Proteins, Lipids, and Carbohydrates

Instructor: Professor Carlos J Bustamante
lab94720@gmail.com or
nthung@berkeley.edu (Lab Operations Manager)

Office Hours: Thursdays 12-1pm in Stanley **421**
Fridays 12-1pm in Stanley **421**

Midterm Exam: Monday, February 22, 7-9pm
2040 VLSB, 155 Dwinelle, 100 GPB, 120 Latimer
Exam covers Prof. Bustamante sections only

There will be NO i-clickers for this section of the course.

Section 2 (February 22 - March 28) Metabolism

Instructor: Professor Evan Miller
evanwmiller@berkeley.edu (NOT evanmiller@berkeley.edu)

Office Hours: Fridays 3-5pm; 227 Hildebrand Hall.

Midterm Exam: Tuesday, April 6, 7-9pm
1 Pimentel, 155 Dwinelle
Exam covers Prof. Miller's sections only
I will not use i-Clickers for this portion of the course

We will use "Piazza" to facilitate group discussion. This is an application that runs through our bCourses site. Group discussion threads are moderated by the instructor and GSIs. *Please use Piazza instead of email to ask questions if you're struggling with concepts or problem sets.* Posts can be completely anonymous and can be answered by fellow classmates as well as GSIs or instructors. Part of your participation grade will include your contributions to the Piazza discussion.

Section 3 (March 30 – April 29) Molecular Biology

Instructor: Professor Michael Botchan
mbotchan@berkeley.edu

Office Hours: Tuesday & Thursday 12-1pm; 421 Stanley Hall

Final Exam: Tuesday, May 10, 7-10pm
Location TBA
Exam covers Prof. Botchan's section only
There will be NO i-clickers for this section of the course.

Lecture Outline

Lecture	Month	Date	Day	Who	What	Chapters
1	January	20	Wed	CJB	Course Overview, water, and pKas	1-2
2	January	22	Fri	CJB	Amino Acids, peptides, and proteins	3
3	January	25	Mon	CJB	Purification and Analysis of Proteins	3
4	January	27	Wed	CJB	Protein sequencing, identification, and posttranslation modifications	3
5	January	29	Fri	CJB	Protein folding and structure	4
6	February	1	Mon	CJB	Globins and binding equations	5
7	February	3	Wed	CJB	Enzyme kinetics	6
8	February	8	Fri	CJB	Enzyme mechanism	6
9	February	9	Mon	CJB	Enzyme regulation	6
10	February	10	Wed	CJB	Carbohydrates	7
11	February	12	Fri	CJB	Nucleotides and Nucleic Acids	8
--	February	15	Mon	Academic and Admin Holiday: NO CLASS		--
12	February	17	Wed	CJB	Lipids	10
13	February	19	Fri	CJB	Membranes	11
--	February	22	Mon	CJB	7-9pm MID TERM 1 (Prof. Bustamante's sections) 2040 VSLB, 155 Dwinelle, 100GPB, 120 Latimer	--
14	February	22	Mon	EWM	Bioenergetics and Metabolism	13
15	February	24	Wed	EWM	Glucose Metabolism I	14
16	February	26	Fri	EWM	Glucose Metabolism II	14/15
17	February	29	Mon	EWM	Citric Acid Cycle I	16
18	March	2	Wed	EWM	Citric Acid Cycle II	16
19	March	4	Fri	EWM	Oxidative phosphorylation I	19
20	March	7	Mon	EWM	Oxidative phosphorylation II	19
21	March	9	Wed	EWM	Photosynthesis	19/20

22	March	11	Fri	EWM	Fatty Acid Metabolism I	17
23	March	14	Mon	EWM	Fatty Acid Metabolism II	17
24	March	16	Wed	EWM	Amino Acid Metabolism I	18
25	March	18	Fri	EWM	Amino Acid Metabolism II/Nucleic Acid Metabolism I	18/19
--	March	21	Mon	Spring Break: NO CLASS		--
--	March	23	Wed	Spring Break: NO CLASS		--
--	March	25	Fri	Spring Break: NO CLASS		--
26	March	28	Mon	EWM	Nucleic Acid Metabolism II/Review	19
27	March	30	Wed	MRB	Nucleic Acid Structure	9
28	April	1	Fri	MRB	Organization of DNA in Cells	25
29	April	4	Mon	MRB	DNA replication	24&25
--	April	5	Tue	EWM	7-9pm MID TERM 2 (Prof. Miller's sections) TBD	--
30	April	6	Wed	MRB	DNA Repair and Cancer	25
31	April	8	Fri	MRB	Episomes; plasmid, transposon and Viruses	9
32	April	11	Mon	MRB	Transcription	26
33	April	13	Wed	MRB	RNA Processing, Reverse Transcription	26
34	April	15	Fri	MRB	Genetic Code	24
35	April	18	Mon	MRB	Protein Synthesis	27
36	April	20	Wed	MRB	Gene Regulation in Prokaryotes	28
37	April	22	Fri	MRB	Gene Regulation in Eukaryotes	28
38	April	25	Mon	MRB	Restriction Enzymes and Cloning	9
39	April	27	Wed	MRB	Advance Genetic Engineering	9
40	April	29	Fri	MRB	Review	--
--	May	2	Mon	RRR Week: NO CLASS		--
--	May	4	Wed	RRR Week: NO CLASS		--
--	May	6	Fri	RRR Week: NO CLASS		--
--	May	9	Tue	ALL	7-9 PM FINAL Location TBA	--

GSI

Name		Email	Lab	Office Hours		
				day	time	location
Pradeep	Bandaru	pbandaru@berkeley.edu	Kuriyan	Mondays	8-9am	Stanley Hall B1 Atrium
Brian	Castellano	bmcastellano.gsi@gmail.com	Zoncu	Wednesdays	2-3pm	1 st Floor LKS
Raissa	Estrela Curado	r.estrela@berkeley.edu	Cate	Wednesdays	1:30-2:30pm	EBB 312H
Zichong	Li	lizichong@berkeley.edu	Zhou	Fridays	1-2pm	1 st Floor LKS
Prajit	Limsirichai	prajit@berkeley.edu	Schaffer	Mondays	3-5pm	Stanley Hall B1 Atrium
Steven C.	Strutt	steven.strutt@berkeley.edu	Doudna	Fridays	12-1pm	Stanley Hall B1 Atrium
Magdalena	Stoeva	mstoeva@berkeley.edu	Coates	Fridays	10-11am	4074 VLSB
Carol	Yu	carolyu@berkeley.edu	----	Mondays	Open	Minor Hall Library

Discussion Sections

Number	Day	Time	Location	GSI
101	Monday	10-11am	121 Wheeler	Prajit
102	Monday	12-1pm	223 Dwinelle	Prajit
103	Monday	2-3pm	205 Dwinelle	Carol
104	Monday	3-4pm	187 Dwinelle	Carol
105	Tuesday	8-9am	250 Dwinelle	Pradeep
106	Tuesday	1-2pm	187 Dwinelle	Pradeep
107	Friday	12-1pm	2030 VLSB	Maggie
108	Wednesday	10-11am	258 Dwinelle	Raissa

109	Wednesday	12-1pm	229 Dwinelle	Brian
110	Wednesday	1-2pm	205 Dwinelle	Brian
111	Wednesday	3-4pm	205 Dwinelle	Raissa
112	Thursday	12-1pm	107 GPB	Steven
113	Thursday	3-4pm	106 Wheeler	Steven
114	Friday	9-10am	125 La Ka Shing	Maggie
115	Friday	10-11am	2032 Valley Life Sci. Building	Zichong
116	Friday	12-1pm	2062 Valley Life Sci. Building	Zichong