

LS4-1 - GENETICS - Fall 2008**Lecture:** MWF 12:00-12:50pm (FOWLER A103B)**Instructor:****Andrew Diener**

diener@ucla.edu

Office hours: Wednesday, 1-3pm

Office: Life Science Building 4227

Phone: 267-4832

Teaching Assistants:**Stephanie Cole**

Section 1D, Tuesdays, 10am-11:50am

scole324@yahoo.com

Section 1F, Tuesdays, 2pm-3:50pm

Office hours: Thursday, 10am-noon

Office: Life Science Building 4226

Eddie Garcia

Section 1C, Mondays, 2pm-3:50pm

ecgarcia@ucla.edu

Section 1E, Tuesdays, noon-1:50pm

Office hours: Monday, 1-2pm; Wednesday 11am-noon

Office: Young Hall 1336

Michael Yourshaw

Section 1A, Mondays, 10am-11:50am

myourshaw.ta@gmail.com

Section 1B, Mondays, 4pm-5:50pm

Office hours: Friday, 4-6pm

Office: Gonda Building 5303 (if not there, 5554)

Course material(Required) *Genetics, Analysis of Genes and Genomes*, 6th edition (2005)

Daniel L. Hartl and Elizabeth W. Jones

(Recommended) *Interactive Genetics* CD, (available from the student store)**Assignments** (See the Assignments table for weekly assignments.)**Textbook:** The assigned end-of-chapter problems are critical to learning the subject matter. You must complete the week's problems before discussion section of the following week. The discussion quiz comes from among the previous week's problems almost verbatim.**Interactive Genetics (CD):** The workbook and interactive problems are an introduction to concepts and problem solving (before starting textbook assignments).**Course web site:** <http://www.lsic.ucla.edu/classes/fall08/>

On the course website you will find a copy of the syllabus, additional practice

problems, practice midterms, keys to exams, suggested reading and more. Each lecture will be Bruincast, which can be accessed from the course web site. Also, lecture slides will be posted in advance for use in taking notes during lecture. Online access to lectures should be treated as a supplement. Regular attendance to lecture is required to stay up to date on the material.

Grading

Point distribution:	1st midterm exam	150 points
	2nd midterm exam	150 points
	final exam	250 points
	discussion section *	120 points
	<u>total</u>	<u>670 points</u>

*see Discussion section

Final grades: For consistency among LS4 offerings, final grades will reflect student percentile ranking as proscribed by the grading policy of the Life Science Core. Your final grade will be based on the number of students who completed the 1st midterm. Thus, your final grade will be unaffected by the number of students who drop LS4-1 after the 1st midterm. Please refrain from asking more specific questions about final grades.

Discussion section

Your participation in discussion section is required. This is a time to go over concepts, ask questions and do in-class assignments. You must attend the section that you are enrolled in. You need permission from the Life Science Core office to change your section time.

There will be seven quizzes during the quarter. Each quiz is worth 20 points and is given 15 minutes before the end of your discussion section. A total of the six highest quiz scores will be your discussion score.

Discussion sections will not meet in week 7 --Tuesday, November 11 is Veterans Day holiday.

Midterms

Two midterms are given from 5-6:50pm on Thursday October 23rd and November 13th. No make-up exams are given. If you have a conflict with scheduled exam times, please contact me as soon as possible.

Returning exams: Midterm exams will be distributed during your discussion section the first and second week following the exam, after which exams can be retrieved from the Life Science Core office.

Regrading policy: If you feel a grading error was made on your midterm exam, please submit your exam to the Life Science Core office (LS 2305) no later than Friday of the week following the exam. Attach a separate sheet with the problem number to be reviewed. Only an error that is related to the specified problem number will be considered.

Life Science Core office

For administrative problems related to this course, please see Lily Yanez or Mark Katayama in the Life Science Core office in LS 2305 or call them at 825-6614. They can assist you with scheduling difficulties or other matters related to Life Science Core classes.

You are welcome to drop by my office to ask questions. I am not always there, and sometimes I may not have time right then, but we can arrange a more convenient time.

LS4-1 Fall 08 Syllabus[Lecture Schedule](#)[Assignment Schedule](#)

Wk	Date	Lect	Topic	Textbook (Chapter.Section)	
0	F	Sept. 26	1	Introduction	-
1	M	Sept. 29	2	Molecular Markers	1.7, 1.8, 2.1-2.6
1	W	Oct. 1	3	Mendelian Genetics	3.1-3.3
1	F	Oct. 3	4	Gene interactions	3.6
2	M	Oct. 6	5	Dominance	3.6
2	W	Oct. 8	6	Probabilities	3.5, 4.5
2	F	Oct. 10	7	Pedigrees	3.4
3	M	Oct. 13	8	Population Genetics	17.2
3	W	Oct. 15	9	DNA Testing	see website
3	F	Oct. 17	10	Mutation	1.6, 14.1, 14.2, 14.4 14.7
4	M	Oct. 20	11	Mitosis/Meiosis	4.1-4.3
4	Th	Oct. 23		1st EXAM (Lect. 1-10)	
4	F	Oct. 24	12	X-linkage	4.4
5	M	Oct. 27	13	Linkage	5.1
5	W	Oct. 29	14	Genetic Maps	5.2
5	F	Oct. 31	15	Positional Cloning	5.3
6	M	Nov. 3	16	Transposons	14.3
6	W	Nov. 5	17	Ploidy	8.1, 8.2, 8.7
6	F	Nov. 7	18	Rearrangements	8.3-8.6
7	M	Nov. 10	19	Fungal Genetics	5.5, 11.5, see website
7	Th	Nov. 13		2nd EXAM (Lect. 11-18)	
7	F	Nov. 14	20	Biochemical Pathways	1.4, 1.5

8	M	Nov. 17	21	Bacterial Genetics	9.1-9.3
8	W	Nov. 19	22	Conjugation	9.4
8	F	Nov. 21	23	Transduction	9.5
9	M	Nov. 24	24	Phage Genetics	9.6
9	W	Nov. 26	25	Genetic Screens	see website
9	F	Nov. 28		THANKSGIVING HOLIDAY	
10	M	Dec. 1	26	Organellar Inheritance	16.1-16.5
10	W	Dec. 3	27	Epigenetic Inheritance	11.6, 11.7
10	F	Dec. 5	28	Wrap-up	-
11	M	Dec. 8		Final EXAM 6:30-9:30pm	

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Wk	Date	Quiz	Assignments
0	Sept. 26	-	-
	Sept. 29		Mendelian Genetics
1		-	Chapter 3: 1-3, 11, 12, 19-22, 29
	Oct. 3		<i>Interactive Genetics: Mendelian Problems</i>
	Oct. 6		Pedigrees
2		1	Chapter 3: 4-10, 13-18, 23-27, 30
	Oct. 10		<i>Interactive Genetics: Pedigrees and Probabilities; Genotype/Phenotype</i>
	Oct. 13		Population
3		2	Chapter 17: 1-3, 5-7, 9-13, 16, 17; Chapter 14: 1, 2, 5, 8-10, 15, 17, 22-24
	Oct. 17		<i>Interactive Genetics: Population Genetics & Molecular Markers 1-3, 6</i>
	Oct. 20		Chromosome Inheritance
4		3	Chapter 4: 1-3, 5-7, 9-13, 16, 19, 22-24, 28-31, 33; Chapter 17: 14, 15
	Oct. 24		<i>Interactive Genetics: Chromosome Theory of Inheritance</i>
	Oct. 27		Recombination
5		4	Chapter 5: 1-11, 14-19, 21-23, 31
	Oct. 31		<i>Interactive Genetics: Linkage; Molecular Markers 4, 5</i>
	Nov. 3		Chromosome Dynamics
6		5	Chapter 8: 1-12, 14, 15, 17-19, 23, 26-28; Chapter 14: 20, 25, 29
	Nov. 7		
	Nov. 10		Fungal Genetics
7		-	(See LS4-1 website)
	Nov. 14		<i>Interactive Genetics: Biochemical Genetics</i>
	Nov. 17		Bacterial Genetics
8		6	Chapter 9: 5, 10, 13-22, 26

	Nov. 21		<i>Interactive Genetics: Bacterial Genetics</i>
	Nov. 24		Genetic Screens
9		7	Chapter 9: 1-3, 27-29
	Nov. 28		
	Dec. 1		Non-Mendelian Inheritance
10		-	Chapter 16: 1, 2, 7-12, 14-16, 21, 25, 26; Chapter 17: 4
	Dec. 5		

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