Biology 240 - Genetics

Fall 2009

Lecture: MWF 11:15-12:05
WLS 311

Lab: NBA117

time	*section*
T 9:05-12:05	6
W 3:35-6:35	7
T 12:20-3:20	8
R 12:20-3:20	9
W 12:20-3:20	10

Text: *Griffiths et al. (9th edition)*
Introduction to Genetic Analysis

Text: ***Bio240 Lab Manual***

Website: http://www.bio.utk.edu/nebenfuehr/bio240

date	day	topic	chapter	Lab unit	quiz
19-Aug	W	Chromosomes + mitosis	2.1+2.3	***no labs***	
21-Aug	F	Meiosis + life cycles	2.3		
24-Aug	M	Single gene inheritance	2.2		
26-Aug	W	Sex linkage	2.5	1- Meiosis	quiz 1
28-Aug	F	Pedigree analysis	2.6		
31-Aug	M	Di-hybrid: probabilities + tests	3.1+3.2		
02-Sep	W	Linkage and recombination	4.1+4.3	2- C-fern	quiz 2
04-Sep	F	Linkage maps	4.(2+5+7)		
07-Sep	M	***Labor Day***			
09-Sep	W	Bacterial genetics - conjugation	5.1-5.3	***no labs***	
11-Sep	F	Bacteriophages + transduction	5.4-5.6		
14-Sep	M	Genes to phenotypes	6.2		
16-Sep	W	Gene interactions	6.1+6.3	2- C-fern (cont.)	quiz 4
18-Sep	F	Population genetics: Rules	17.1-17.2		
21-Sep	M	Population genetics: Exceptions	17.3-17.6		
23-Sep	W	Evolutionary genetics	19.1-19.4	3- Transformation	quiz 3
25-Sep	F	*review*	*2-6+17+19*		
28-Sep	**M**	**MIDTERM 1**			
30-Sep	W	DNA structure	7.1-7.3	8- Population	
02-Oct	F	DNA replication	7.4-7.7		
05-Oct	M	Restriction digests + PCR	20.1+20.2		
07-Oct	W	Sequencing + gene isolation	20.3+20.4	4- Plasmid isolation	quiz 5
09-Oct	F	Genetic engineering	20.5+20.6		
12-Oct	M	RNA + transcription	8.1+8.2		
14-Oct	W	RNA processing	8.3+8.4	***no labs***	
16-Oct	F	***Fall Break***			
19-Oct	M	Translation: code	9.1-9.3		
21-Oct	W	Translation: mechanism	9.4-9.6	5- Restriction mapping	quiz 6
23-Oct	F	Regulation of gene expression (1)	10.1-10.3		
26-Oct	M	Regulation of gene expression (2)	10.4-10.7		
28-Oct	W	Regulation of gene expression (3)	11.1,2,3+6	6- DNA fingerprinting	quiz 7
30-Oct	F	Developmental genetics 1	12.1+12.2		
02-Nov	M	Developmental genetics 2	12.3+12.4		
04-Nov	W	*review*	*7-12+20*	7- DNA sequencing	
06-Nov	**F**	**MIDTERM 2**			
09-Nov	M	Transposons	14.1+14.2		
11-Nov	W	Transposons	14.3+14.4	Problem Set	
13-Nov	F	Point mutations / spontaneous	15.1-15.3		
16-Nov	M	Repair mechanisms + crossovers	15.4+15.5		
18-Nov	W	Chromosomal aberrations: number	16.1	9- Disease genes	quiz 8
20-Nov	F	Chromosomal aberrations: structure	16.2		
23-Nov	M	New genes + sequence comparisons	19.5-19.9		
25-Nov	W	Quantitative genetics	18.1-18.5	***no labs***	
27-Nov	F	***Thanksgiving Break***			
30-Nov	M	*review for final*	*14-16+18+19*		
02-Dec	W	*"study day" - no class*		***no labs***	
09-Dec	**M**	**FINAL EXAM 12:30 – 2:30**			

Notes

1 Schedule subject to change as needed.
2 **Homework** assignments are voluntary (Go Vols!) and not graded.
These questions are a good exercise for the midterms!
3 **Quizzes** are given during lab sessions, but will cover lecture material of previous week.
4 **Midterm and Final Exams** will be mutliple choice exams.
Bring a #2 pencil and a eraser (if you need this) to all exams.
All exams are in the lecture room (WLS 311), midterms during normal class hours.
5 One (1) makeup exam is possible, if you can provide documentation (doctor's note).
6 Please inform your instructors ASAP about university sponsored events so that alternatives to labs or exams can be arranged.
7 If you have a "final exam conflict" (more than 3 on 1 day), see the UTK policy.
8 Attendance is lectures is expected, attendance in labs is required!
Zero (0) points, if you miss a lab.
9 Read the lab assignment BEFORE coming the lab and answer pre-lab questions.
10 Lab assigments and reports are due within one week after finishing the lab.
11 The lowest lab grade will be dropped and replaced with the average of all the others.
12 Be on time for the lab and pay attention or lose points.
13 There will be no extra credit.
14 The grading scale may be adjusted as needed ("curved").
However, only the final distribution of points will determine how this be done.
15 For all forms of support go to the Student Success Center
http://studentsuccess.tennessee.edu
16 If you need special accommodations due to documented disability, contact the Office of Disability Services 974-6087.

Grading

Midterm 1 (chapters 1-6, 17, 19)	120 pts
Midterm 2 (chapters 7-12,20)	120 pts
Final Exam (cumulative!)	225 pts
Quizzes (15 pts each)	120 pts
Problem Set	15 pts
Lecture total	600 pts
Labs (20 points each + extras)	200 pts
Lab total	200 pts
Grand total	**800 pts**

Anticipated Grade Levels

88-100%	A
85-87%	A-
82-84%	B+
77-81%	B
74-76%	B-
71-73%	C+
66-70%	C
63-65%	C-
60-62%	D+
55-59%	D
52-54%	D-
0-51%	F

Instructor

Dr. Andreas Nebenführ
nebenfuehr@utk.edu
974-9201
Hesler Biology 240
Office hours: M 2:00 - 3:00
R 3:30 - 4:30