Principles of Genetics

Biology 3060 Fall 2016

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Classes: MTWH, 12:30 – 1:20, NR 105

Office Hours: M 1:30 – 2:30 pm; T 1:30 – 2:30 pm; and by appointment

Required Materials: Pierce, B. A., *Genetics – A Conceptual Approach, 5th ed* (2014) W.H. Freeman
An iClicker

Objectives:
Provide content knowledge of major areas of genetics.
Strengthen problem-solving skills.
Develop teamwork skills for tackling scientific problems.
Highlight the link between genetics and society.

Points:

Daily online reading quizzes	16%
In-class clicker questions	2%
Current genetics readings	2%
Group problem sets	30%
Three hourly exams	11% each
Comprehensive final exam	17%

Overview of the Couse: This course takes a student-centered, team-based approach to learning genetics. The aim is to improve genetics learning by having you work with the material instead of simply listening to lectures. I will help guide your learning, but you will take the lead.

An important part of your learning ownership is daily assigned readings. These readings will provide you with background information that make it possible for class time to focus on difficult concepts and to have you work effectively in your group on genetics problems. Quizzes on the readings will be given each day. These will be available on Canvas and need to be completed before class. Full instructions to quizzes will be available at the start of the semester.

Classes will open with a block of lecture on the most important or difficult concepts of the material we'll tackle that day. Once lecture is finished, you will work in teams on genetics problems while the UTFs and I move from team to team to answer questions and see how you're doing.

A few clicker questions will be posed during most class periods. These will first be answered individually followed by group work on the same question. You'll then have a second opportunity to answer the same question. Points will be awarded for correct answers to these questions, usually for the second try only.

Problem sets will be due every other week. Each group will submit one problem set, with the same score generally issued to every student in the group. The exception will be in cases where someone disagrees

with the group consensus. If you have a different answer, you can add your answer (with your name) and submit it as part of the group's problem set.

Expect to spend a significant amount of time outside of class on assigned readings and problems sets.

Details of Point-Awarding Activities and Grading:

Reading quizzes: Reading quizzes will be given almost every day of class. Their purpose is to ensure that you come to class prepared with the background information needed to understand more difficult concepts and to work on genetic problems.

The required reading for each class will be announced on Canvas no later than 5 pm of the day before class. This isn't a lot of lead-time, but it's impossible to post a detailed schedule for the entire semester. Wherever possible, assigned reading will be posted well ahead of the 5 pm deadline.

To help you anticipate the readings, the chapter sections that were required reading for the fall 2015 version of this course are listed on the last pages of this syllabus. This course will follow these reading assignments closely. Therefore, are wondering what's likely to be assigned and want to read ahead, you can use this information from the 2015 course as a guide.

Reading quizzes will be completed in Canvas. They will be available no later than 7 pm the day before they are due and they will close at 12:15 pm the following day. The number of question will vary but generally be in the range of 5 – 15 multiple choice and true/false questions that are intended to test your understanding of the basics of the material. All questions are weighed equally. The reading quiz score constitutes 16% of your overall course score.

Clicker questions: A small number of clicker questions will be posed in most classes. You'll have two opportunities to answer each question, first working alone and then after working with classmates. Only correct answers will be awarded points. The good news is that in almost every case, only your answer to the second posing of each question will count. However, I'm holding open the option of counting initial responses if needed as a way to ensure that an honest effort is made on the individual work. Clicker questions will contribute 2% of your course score.

Problem Sets: You will work in every class in a group of 4 - 5 students to solve genetics problem sets that are due every other week. Each problem set will be submitted through Canvas and is due at 6 pm on the dates posted in the syllabus. There will be a 10% point reduction if the problem set is submitted late ***but within 24*** *hours* after the due date. Beyond this time, submissions will **not be accepted**. New problems may be added to a set up to 30 hours before the due date.

The problem sets allow you to work with peers in improving genetics problem-solving and teamwork skills. Some work outside of class almost certainly will be required to complete the problem sets. Only one problem set per group will be submitted. It is up to team members to decide on a system of how to work on and submit problem sets. With one possible exception described below, everyone in the group receives the same score. Late submissions count against all group members, so it is imperative to have a clear understanding of who will submit each problem set.

The possible exception to the same-score-for-all-group-members rule is the case of a disagreement over the group's answer. If you don't agree with the group's answer, you may submit your own answer to a question as part of your group's answer set (no individually submitted answers). I'm anticipating this to be a rare event. If this prediction is wrong, the policy may need to be revisited.

Groups will be assigned by the instructor. The expectation is that everyone will participate actively in their group. I will occasionally ask questions about group dynamics. If there is a problem, I will work with the group or an individual to address it. It is possible for points NOT to be awarded if a pattern of non-participation occurs.

Readings: You will read 2 – 4 short articles on current genetics during the course of the semester. These will be followed by a simple, short quiz given in Canvas. I think it's important to move beyond the text and to see what's happening in genetics today – and these readings take a step in that direction. The readings are unscheduled, but you'll have lots of warning when they come up, plenty of time to finish the articles, and to take the short quizzes.

Exams: There will be three hourly exams and one comprehensive final exam. No exam scores will be dropped. Exam questions will focus primarily on the concepts covered during lectures and in the problem sets. Only rarely will a question come solely from readings. With the possible exception of the first exam, exams will be taken at the testing center. Full instructions on how to schedule these exams will be given early in the semester.

Grading: The most stringent possible grading scale is shown at right. Some grade cutoffs may be adjusted downwards, but I can't know whether this will occur or where a new cutoff will be until all scores are tabulated at the end of the semester. Points *may* be added at the instructor's discretion to exams, clicker scores, or the reading quiz score.

Grade	Percentage	Grade	Percentage
A	92-100%	C	72-77%
A-	90-91%	C-	70-71%
B+	88-89%	D+	68-69%
B	82-87%	D	60-67%
B-	80-81%	F	< 60%
C+	78-79%		

Course Policies:

- You must actively participate in your group
- The group stands or falls together – be sure to have a clear line of communication about who is submitting a problem set and the quality of the submission
- Deadlines for quizzes and problem set submissions are firm
- You must have a working iClicker in class in order to obtain clicker question points
- Extra credit activities are not available
- Grading of exam questions or problem sets is open for discussion up to 48 hours after scores are returned to the class, but not beyond this time

Everyone knows that problems can occur. I'm reasonable and will be happy to discuss unforeseen events with you and possibly make adjustments, but there must be a well-justified reason for making any exceptions to the course policies.

Canvas: Daily reading lists, PowerPoints presented in class, answered iClicker questions, your exam and problem set scores, instructions for submitting problem sets, announcements, and a copy of this syllabus will be available on Canvas. You should check this site frequently.

Office Hours and Meeting with the Instructor: Feel free to stop by during regular office hours. If you can't come during these times, please send me an e-mail or see me after class to set up an alternative time to meet.

Lecture Schedule: I'll attempt to stay as close as possible to the targets of the lecture schedule listed below. However, it's almost certain that adjustments will be needed as the semester unfolds.

Access to the eText: If you've purchased a standalone eText or have an eText and hard copy combination, you can access the eText from: **http://www.macmillanhighered.com/launchpad/pierce5e/3894143**

Additional publisher-provided information:

To register for the course go to: http://www.macmillanhighered.com/launchpad/pierce5e/3894143

You have three options to accessing the etext: you can purchase direct access, you can use the access code that comes with the text purchased at the USU Bookstore, or you can get ***free 21-day access*** while deciding whether a stand-alone etext works for you.

To navigate and start using LaunchPad (the platform that allows etext access), please consult the Get Started guide and/or view this video.

If you have problems registering, purchasing, or logging in, please contact Customer Support. You can reach a representative 24 hours a day, 7 days a week:

- through the online form
- by chat

Or by phone at (800) 936-6899:

- Monday through Thursday 8:00 a.m. to 3:00 a.m.
- Friday 8:00 a.m. to 12:00 a.m.
- Saturday 12:00 p.m. to 8:00 p.m.
- Sunday 12:00 a.m. to 3:00 a.m.
  (All times are Eastern Time)

Critical Deadlines: Deadlines for adding and dropping the course with various notations on your transcript and for changing to P/D$^+$/D/F are all given in the Fall Registration Calendar at: http://catalog.usu.edu/content.php?catoid=12&navoid=3970. If you find yourself wondering about any of these options, please check the posted dates carefully.

Academic Honesty and Integrity Policy: Policies described in the USU Academic Integrity/Honesty document (http://catalog.usu.edu/content.php?catoid=12&navoid=3140&hl=Academic+Honesty%2FIntegrity&returnto=search) will be followed for this course.

ADA compliance: Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444 voice, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

Advice: Realize that you're going to need to spend a lot of time on this course and that you must keep up with readings and problem sets. Also be careful to avoid the trap of having your teammates do the problem solving for you. You can easily get a great score on the problem sets, but things won't go well in exams if you lean on others to do your work.

Principles of Genetics (Biol 3060) Fall 2016
Target[1] Lecture Schedule

Meeting			Topic	Chapter[2]	Exam
1	M	8/29	Introduction to Course; Introduction to Genetics	1	
2	T	8/30	Chromosomes & Cellular Reproduction	2	
3	W	8/31	Chromosomes & Cellular Reproduction	2	
4	H	9/1	Basic Principles of Heredity	3	
	M	9/5	***Labor Day Holiday!***		
5	T	9/6	Basic Principles of Heredity	3	
6	W	9/7	Basic Principles of Heredity	3	
7	H	9/8	Sex Determination & Sex-Linked Characteristics ***Problem Set 1 Due at 6 pm***	4	
8	M	9/12	Sex Determination & Sex-Linked Characteristics	4	
9	T	9/13	Sex Determination & Sex-Linked Characteristics	4	
10	W	9/14	Extensions & Modifications of Basic Principles	5	
11	H	9/15	Extensions & Modifications of Basic Principles	5	
12	M	9/19	Extensions & Modifications of Basic Principles	5	
13	T	9/20	Extensions & Modifications of Basic Principles	5	
14	W	9/21	Extensions & Modifications of Basic Principles	5	
15	H	9/22	Pedigree Analysis, Applications, & Genetic Testing ***Problem Set 2 Due at 6 pm***	6	
16	M	9/26	**Exam 1**		**(in class)**
17	T	9/27	Linkage, Recombination, & Eukaryotic Gene Mapping	7	
18	W	9/28	Linkage, Recombination, & Eukaryotic Gene Mapping	7	
19	H	9/29	Linkage, Recombination, & Eukaryotic Gene Mapping	7	
20	M	10/3	Linkage, Recombination, & Eukaryotic Gene Mapping	7	
21	T	10/4	Chromosome Variation	8	
22	W	10/5	Chromosome Variation	8	
23	H	10/6	Chromosome Variation ***Problem Set 3 Due at 6 pm***	8	
24	M	10/10	DNA: The Chemical Nature of the Gene	10	
25	T	10/11	Chromosome Structure & Organelle DNA	11	
26	W	10/12	Chromosome Structure & Organelle DNA	11	
27	H	10/13	Chromosome Structure & Organelle DNA	11	
28	M	10/17	DNA Replication & Recombination	12	
29	T	10/18	DNA Replication & Recombination	12	
30	W	10/19	DNA Replication & Recombination ***Problem Set 4 Due at 6 pm***	12	
	H	10/20	**No Class** (because of Fall Holiday Schedule)		
31	M	10/24	Transcription	13	
32	T	10/25	Transcription	13	**Exam 2**
33	W	10/26	RNA Molecules & RNA Processing	14	**Exam 2**
34	H	10/27	RNA Molecules & RNA Processing	14	
35	M	10/31	RNA Molecules & RNA Processing	14	
36	T	11/1	The Genetic Code & Translation	15	
37	W	11/2	The Genetic Code & Translation	15	
38	H	11/3	The Genetic Code & Translation ***Problem Set 5 Due at 6 pm***	15	
39	M	11/7	The Genetic Code & Translation	15	
40	T	11/8	Control of Gene Expression in Bacteria	16	
41	W	11/9	Control of Gene Expression in Bacteria	16	

42	H	11/10	Control of Gene Expression in Eukaryotes	17	
43	M	11/14	Control of Gene Expression in Eukaryotes	17	
44	T	11/15	Epigenetics	21	
45	W	11/16	Gene Mutations & DNA Repair	18	
46	H	11/17	Gene Mutations & DNA Repair ***Problem Set 6 Due at 6 pm***	18	
47	M	11/21	Gene Mutations & DNA Repair	18	**Exam 3**
48	T	11/22	Gene Mutations & DNA Repair	18	**Exam 3**
	W	11/23	***Thanksgiving Holiday!***		
	H	11/24	***Thanksgiving Holiday!***		
49	M	11/28	Genomics and Proteomics	20	
50	T	11/29	Quantitative Genetics	24	
51	W	11/30	Quantitative Genetics	24	
52	H	12/1	Quantitative Genetics	24	
53	M	12/5	Population Genetics	25	
54	T	12/6	Population Genetics	25	
55	W	12/7	Population Genetics ***Problem Set 7 Due at 6 pm***	25	
56	H	12/8	Population Genetics	25	
	M - T	12/12 -13			**Final Exam**

1. Don't be surprised if adjustments are needed during the semester. The only things that are locked in place are exam dates and the holidays.

2. This is an overview reading list. Details of each reading will be posted on Canvas no later than 5 pm the day before the reading quiz is due. A reading list from the fall 2015 class is provided below. What was done last fall will be a close math to this year's reading assignments. Therefore, if you want or need to read ahead, use last year's reading list as a guide.

Fall Genetics 2015 (Biol 3060) Reading List

The readings for this semester's course will closely – but not perfectly – follow what's listed below. The list is provided for those of you who either want to read ahead or who are uncomfortable waiting until the afternoon ahead of class for the daily reading assignment to be posted.

Reading List Genetics Fall 2015

Meeting			Assigned Reading
1	M	8/31	
2	T	9/1	Section 1.3; Eukaryotic Chromosomes through Meiosis in Animals (p. 21- 36; Section 2.2 starting from Eukaryotic Cell Reproduction through The Separation of Sister Chromatids and Homologous Chromosomes). Most of this should be review but its foundational material that you absolutely need to know. Read for the big picture, not details.
3	W	9/2	Section 3.1 and 3.2 through The Molecular Nature of Alleles (stop at Prediction the Outcome of Genetic Crosses)
4	F	9/4	Section 3.2 starting from Predicting the Outcome of Genetic Crosses to the section end (stop at section 3.3). You can skip the section on the binomial expansion, but you need to know the formula ($(n!/s!t!)p^s q^t$)) for calculating the probability of any combination of two events. I'd ask you to read more, but I want to get lecture and the assigned readings in better alignment. We're currently falling behind in lecture relative to the readings.

	M	9/7	***Labor Day Holiday!***
5	T	9/8	Section 3.3, Dihybrid Crosses.
6	W	9/9	Section 4.1. Focus on the fact that there are many sex determination systems and know their outlines, but don't worry about details. Pay the most attention to the XY, XO, and ZW systems, and sex determination in *Drosophila*. DON'T worry about memorizing the names of specific human sex chromosome abnormalities, but do realize that there are lot of them. Carefully read The Role of Sex Chromosomes and The Male Determining Gene in Humans. Don't worry about details of Androgen-Insensitivity Syndrome.
7	F	9/11	Section 4.2 (don't worry about the subsection Nondisjunction and the Chromosome Theory of Inheritance or the subsection Y-linked Characteristics (and all the sub-subsections that it includes)) and Section 4.3
8	M	9/14	Reading quiz holiday! We need to catch lectures up to the assigned readings and that's the reason for the break. If you're anxious to get ahead, start reading Chapter 5 section 5.1 – but there won't be quiz for Monday. Have a good weekend.
9	T	9/15	Section 5.1
10	W	9/16	Section 5.2 (In the epistasis material, don't worry about memorizing the names of the various forms of epistasis – but do get an idea of what epistasis is and how it works. Pay careful attention to the Complementation Test, but, unless you're a dog breeder, don't worry about the Complex Genetics of Coat Color in Dogs.)
	F	9/18	Sections 5.3 and 5.5. Don't worry about section 5.4. In section 5.3, you can skip the Cytoplasmic Inheritance subsection. Read the Genomic Imprinting and Epigenetics subsections to get a feel for these genetic phenomena, but you won't be responsible for being able to remember the specific examples given in the text (we'll cover epigenetics in more detail later in the course).
11	M	9/21	Reading quiz holiday! Once again, we need to catch lectures up to the assigned readings and that's the reason for the break. Have a good weekend.
12	T	9/22	Chapter 6, sections 6.1 and 6.2. (We won't cover section 6.3)
13	W	9/23	Chapter 7, sections 7.1 and 7.2 through Complete Linkage Compared with Independent Assortment (stop at Crossing Over with Linked Genes).
14	F	9/25	Section 7.2 Crossing Over with Linked Genes, Calculating Recombination Frequency, Coupling and Repulsion. (This gets us ahead of material in lecture, but you'll need to read this sometime, so why not now?)
15	M	9/28	Reading quiz holiday! (Are you beginning to see a pattern?) There are two things going on this time: We need to catch lectures up to the assigned readings and I want you to have time to focus on preparing for Tuesday's exam. There will be no quiz or assigned reading for the exam day. Have a good weekend.
16	T	9/29	**Exam 1**
17	W	9/30	Post-exam reading quiz break.
18	F	10/2	Ok, back to work. Read: Predicting the Outcomes of Crosses with Linked Genes (even though we covered this in class), Gene Mapping with Recombination Frequencies, Constructing Maps by Two Point Test Crosses, Effect of Multiple Crossovers (this is in section 7.3). We'll skip a lot of subsections in both sections 7.2 and 7.3.
19	M	10/5	Chapter 7: Section 7.3: Mapping with Molecular Markers, Genes Can be Located with Genomewide Association Studies; Section 7.4: Physical Chromosome Mapping Through Molecular Analysis; Section 7.5 (all of this very short section); Chapter 8: Section 8.1 and 8.2 (All of these sections. However, the good news is don't worry about the details of crossing over in inversion heterozygotes (figs. 8.13 & 8.14) or segregation of reciprocal translocation heterozygous chromosomes (fig. 8.16)).
20	T	10/6	Chapter 8 (Chromosome Variation): Sections 8.3 and 8.4
21	W	10/7	Chapter 10: Section 10.1; (skip 10.2); 10.3; and 10.4. In section 10.4, read to get the idea that DNA can adopt non-standard structures and can be chemically modified, but don't worry about details.
22	F	10/9	Reading quiz holiday so we can get lecture and the reading in synch. If you'd like to get ahead in the reading, Chapter 11, Sections 1 – 3 is a good place to start.
23	M	10/12	Chapter 11, Sections 11.1 – 11.3. In section 11.1, don't bother with The Bacterial Chromosome, and read Supercoiling only for the ideas of what supercoiling is and that DNA in cells is supercoiled. I'll be honest in saying that we won't cover this material in class on Monday, but reading it now will put you a better position for the upcoming chapters.

	T	10/13	Section 11.4. We won't cover this in lecture and any exam questions on this material will be written at a high level and on the big ideas. However, since we owe our lives to chloroplasts and mitochondria, since there are many mitochondrial diseases, and because decline in mitochondrial function appears to contribute to aging, it would be a mistake for you not to know some of the basics. In reading this section, you can skip all details in The Mitochondrial Genome, and The Chloroplast Genome. In other sections, read for the big ideas on evolution, replicative segregation, uniparental inheritance, involvement in diseases, and movement of genes over time between the organelle and nuclear genomes.
24	W	10/14	Section 12.2 starting from Modes of Replication (in this section, focus on theta replication and eukaryotic linear replication – you can skip rolling circle replication); then read the remainder of the section. Requirement of Replication
25	Th	10/15	Section 12.3
	F	10/16	***Fall Holiday!***
26	M	10/19	Section 12.4 & Section 12.5 (Skip Enzymes Required for Recombination, and pay attention to the figures in this section. Don't worry about every detail of the double strand break model (but do get a sense for how it works).)
	T	10/20	(Inadvertent) Reading Quiz Holiday! Here's the deal: I got tied up in office hours following by work on a committee and completely forgot about reading assignment and quiz until 6 pm. It's too late to assign one now. If you want to read ahead, see the assignment for Wednesday.
27	W	10/21	Chapter 13, Sections 13.1 – 13.3. In section 13.1, don't worry about knowing all the listed classes of RNA, but do know that there are a lot of different kinds. We'll cover the important classes in turn, and that's when you'll get to know them.
28	F	10/23	Chapter 13, Section 13.4 & 13.5; Chapter 14, Section 14.1.
29	M	10/26	Reading quiz holiday for Monday and for Exam 2 on Tuesday.
30	T	10/27	**Exam 2**
31	W	10/28	Chapter 14, Section 14.2.
32	F	10/30	Sections 14.3 – 14.6. Read 14.3 and 14.4 for the overview. Don't worry about details of processing and base modification for tRNAs and rRNAs, but do get a feeling for the extensive processing that's required and for the structure of the ribosome.
33	M	11/2	Start with the subsection "The Structure and Function of Proteins" within section 15.1 (you're not required to read material prior to this), then read section 15.2. Most of this material will be a review from other courses, but you're also likely to pick up a few new things along the way.
34	T	11/3	Section 15.3 (the quiz for this material may be posted later than normal, but no later that 6:30 pm)
35	W	11/4	Section 15.4. Don't worry about mRNA Surveillance, Non-Sense Mediated Decay, Stalled Ribosomes and Nonstop mRNAs, or No-Go Decay. Read the rest of this section for an overview. This is a light reading assignment that's meant to get lecture and readings back in synch.
36	F	11/6	Section 16.1 & 16.2 (with the exception of the Negative and Positive Control: Inducible and Repressible Operons subsection, and the *trp* Operon subsection; Friday's reading quiz will NOT cover material specific to the *lac* operon)
37	M	11/9	*lac* operon material in Section 16.2 (Monday's reading quiz will cover only material specific to the *lac* operon).
38	T	11/10	Section 16.4, Riboswitches and RNA-Mediated Repression Through Ribozymes only.
39	W	11/11	Sections 17.1 & 17.2 (don't worry about chromatin immunoprecipitation; the quiz will be posted later than normal, but no later than 6:30 pm)
40	F	11/13	Reading quiz holiday (to avoid bad luck on Friday 13th!)
41	M	11/16	Sections 17.3 – 17.5.
42	T	11/17	Sections 21.1 – 21.3 up to but not including Behavioral Genetics and subsequent material.
43	W	11/18	The following sections of 21.3: X Inactivation (don't get bogged down in the details of genes in the X inactivation center), Epigenetic Changes Associated with Cell Differentiation, and Genomic Imprinting.
44	F	11/20	Chapter 18, Section 18.1.
45	M	11/23	Section 18.2. There's a ton of extraneous detail that you can ignore in this section. The main thing I want you to get is a sense of the ways mutations can arise, both though errors in base pairing and through damage to DNA. Don't worry about the details of every example.

46	T	11/24	Section 18.4. Once you reach the sections on transposable elements in bacteria and eukaryotes, don't worry about the details of any particular transposon. Instead, focus on the bigger picture ideas such as the general types of bacterial transposable elements, the ways transposable elements cause mutations and how these mutations can be reversed when a transposable element excises from a gene, and the many roles of transposable elements in biology.
	W	11/25	***Thanksgiving Holiday!***
	F	11/27	***Thanksgiving Holiday!***
47	M	11/30	Section 18.5.
48	T	12/1	**Exam 3**
49	W	12/2	Reading quiz holiday.
50	F	12/4	Chapter 24 section 24.1 and section 24.3 through the Summary Equation subsection. In section 24.1, you can skip the Determining Gene Number for a Polygenic Trait subsection. Section 24.2 isn't assigned, but if you don't have any statistics background (or if you could use a refresher), reviewing the section to get a feel for what things like variance, covariance, and correlation are is a good idea. For full disclosure, none of Section 24.2 will be on the reading quiz. The quiz will be posted no later than 10 am Thursday morning.
51	M	12/7	Chapter 24, Sections 24.3 & 24.4. There's a lot of intimidating material here. You can skip the Heritability by Elimination of Variance Components subsection, and go light in Heritability and Degrees of Relatedness. A quiz will be available by Saturday morning.
52	T	12/8	Chapter 25, Sections 25.1 & 25.2 through Closer Examination of the Hardy-Weinberg Law (stop at Implications of the Hardy-Weinberg Law).
53	W	12/9	Chapter 25, Section 25.2 beginning at Implications of the Hardy-Weinberg Law through the end of the section. Read Section 25.3 to get a sense of how non-random mating changes the genotype frequencies predicted by the Hardy-Weinberg equilibrium and to get an idea of why inbreeding depression occurs, but don't worry about the math. Finally, read Section 25.4 through the Migration subsection. The quiz will be posted by 6 pm December 8.
54	F	12/11	***Reading Quiz Holiday!*** Although there's no assigned reading for the final class on Friday, I'd advise you to read the sections of the text that match what we cover in the last class, once you know the nature of that material.