

Text: *Genetic Analysis: an integrated approach* by MF Sanders and JL Bowman, Pearson Education Inc., 2012

Instructors:

Dr. Brigitte Dauwalder, bdauwalder@uh.edu, 713-743-2550, Office: SR2 453G

Office Hours: Mon 2-3 pm; Thurs 7-8 pm

Dr. Diane Wiernasz, dwiernasz@uh.edu, 713-743-2677, Office: SR2, 321E

Office Hours: Tues 1-2 pm; Tues 7-8 pm (as needed); Thurs 7-8 pm

Sections:	10724	Tues/Thurs	11:30 - 1:00	(SR1 117)
	30591	Tues/Thurs	5:30- 7:00	(SEC 101)

Class websites: <http://biol3301sp13.blogspot.com>
<http://www.masteringgenetics.com>

Access to the Mastering Genetics website is required for the class. Homework questions from the site will be graded and will contribute 20% to the course grade.

All homework will be due the first Tuesday after it was assigned by 5:00 AM.

You are responsible for setting up your login and password: select course MGENDauWz81501

Lecture Q&A sessions:

We will have four optional tutorial sessions associated with the lectures: 1) Tuesday 4-5 pm, 2) Thursday 1-2 pm, 3) Thursday 7-8 pm, 4) Friday 2-3 pm. *Meeting rooms will be posted on the class website.* You may attend any or all sessions each week. The purpose of these sessions is to address questions from the lecture. You should email your questions at least one day in advance to Biol3301@gmail.com, so that we can focus on concepts that are of broad concern.

Grading and exam policies:

Grades will be based on the homework questions (20%), three midterm exams (each 20%), and a comprehensive final exam (20%). Exam scores will **not** be curved, nor will any exam be dropped. If you miss an exam due to illness or an emergency, you will be able to take an oral makeup exam, but you must provide appropriate documentation. Except under extraordinary circumstances, students should notify the relevant instructor within 24 hrs of missing the exam.

All exams will consist of multiple choice questions only. Questions on exams will cover material presented in the lectures. Lectures will usually not cover all of the material outlined in the text readings, and sometimes lectures will cover material that is not in the text.

Grading scale:

A = 90-100, A- = 85-89, B+ = 82-84, B = 73-81, B- = 70-72, C+ = 67-69, C = 53-66, C- = 50-52, D+ = 47-49, D = 43-46, D- = 40-42, F = below 40.

Policy on grades of I (Incomplete): An incomplete will be given only when the student has completed all work in the course with the exception of the last midterm and/or final, and is unable to take the last midterm or final because of a medical or family emergency.

Withdrawal: 30 Jan -- last day to withdraw without receiving a grade
 27 Mar -- last day to withdraw with a grade of W

Lecture Schedule

Lecture	Date	Title	Reading*
<i>Diane Wiernasz</i>			
1.	Jan 15	Introduction, autosomal inheritance	1-2
2.	Jan 17	Cell division and chromosomal heredity	3
3.	Jan 22	Sex-linked inheritance	3
4.	Jan 24	Gene interaction	4
5.	Jan 29	Gene linkage and mapping in eukaryotes	5
6.	Jan 31	Gene linkage and mapping in eukaryotes	5
7.	Feb 05	Linkage and pedigree analysis	5
8.	Feb 07	Gene mutation, DNA repair and homologous recombination	12
9.	Feb 12	Transposable elements and genome organization	13
10.	Feb 14	Variation in chromosome structure and number	13
	Feb 19	Midterm Exam 1	
11.	Feb 21	Cytoplasmic inheritance and evolution of organelle genomes	19
12.	Feb 26	Genetic analysis of quantitative traits	21
13.	Feb 28	Population genetics and evolution	22
<i>Brigitte Dauwalder</i>			
14.	Mar 05	DNA: structure and replication	7
15.	Mar 07	RNA: transcription and processing	8
	Mar 12	Spring Break	
	Mar 14	Spring Break	
16.	Mar 19	RNA: roles of RNAs	8
17.	Mar 21	Protein synthesis	9
	Mar 26	Midterm Exam 2	
18.	Mar 28	Chromosome structure	11
19.	Apr 02	Prokaryotic gene regulation	14
20.	Apr 04	Eukaryotic regulation of gene expression	15
21.	Apr 09	Developmental genetics	20
22.	Apr 11	Developmental genetics	20
23.	Apr 16	Genomics: genetics from a whole-genome perspective	18
24.	Apr 18	Forward genetics and recombinant DNA technology	16
25.	Apr 23	Applications of recombinant DNA technology and reverse genetics	17
	Apr 25	Midterm Exam 3	
	May 07	Final Exam - Comprehensive	

*Main chapter of Sanders and Bowman covered in each lecture.

The slides for each lecture will be posted on the course website (<http://biol3301sp13.blogspot.com>) on the day before the lecture. If there are mistakes or changes, the slides may be reposted.

Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.

Note: The above course information was last updated on 12 January 2013, and is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructors during the course.