

**Bio 2313.01 Introduction to Genetics** Fall 2007 TuTh 9:30-10:45 A.M. SB 2.03.12

Instructor-Dr. A. Cassill Office Hours SB 3.02.17 TuTh 11:00 P.M. to 12:00 P.M. or by appointment.

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Textbook: Genetics a Conceptual Approach 2<sup>nd</sup> edition by Pierce**Lecture outline**

<u>Date</u>	<u>Subject</u>	<u>Chapter</u>	<u>Problems</u>
8/23	Introduction, Mitosis, Meiosis	1,2	1-5,6,16 2-8,13,14,15,32
8/28	Basic Heredity	3	3,8,14,15,20,24,28,29,33
<b>8/29</b>	<b>Drop only Begins</b>		
8/30	Basic Heredity	3	
9/4	Sex Determination	4	8,9,10,,13,15,16,19,24,39
9/6	Extensions of Mendelian Ratios	5	2,6,17,29,32
9/11	Pedigree Analysis	6,7	11,12,16,
9/13	Gene mapping	7]	8,9,10,14,24,25,28,29,30
9/18	<b>FIRST HOUR EXAM</b>		
9/20	Bacterial genetics	8	3,4,19,28
9/25	Chromosomal Variation, DNA	9, 10	2,4,5,20,
9/27	DNA structure	10	1,8,9,11,20,23,24,25,26
10/2	Chromosome structure	11	2,11,12,22,29
10/4	Replication	12	6,8,9,10,22,23,25,
10/9	Transcription	13	1,2,3,8,11,12,
10/11	Transcription	13], 14	
10/16	<b>SECOND HOUR EXAM</b>		
10/18	RNA processing	14	4,6,7,9,
<b>10/24</b>	<b>Drop only Ends</b>		
10/23	Translation	15	1,5,8,9,17,
10/25	Control of Gene Expression	15, 16	
10/30	Control of Gene Expression	16	3,4,5,19,24,25,
11/1	Mutation and Repair	17	1,2,4,8,9,10,11,12,13,14
11/6	Biotechnology	18	2,7,8,30,
11/8	Biotech/ Genomics	18], 19	
11/13	Genomics	19	1,2,4,26,30
11/15	<b>THIRD HOUR EXAM</b>		
11/20	Development Cancer Immunology	21	3,4,5,7,8,10,12,14,17
11/22	THANKSGIVING Holiday		
11/27	Development Cancer Immunology	21	
11/29	Population genetics	23 sections of 22	
12/4	STUDY DAY-no class		
<b>12/10 MON</b>	<b>FINAL EXAMINATION 10:30-1:15</b>		

This course will introduce students to the important concept that living organisms require a mechanism for reliably storing and transmitting a blueprint for all their components. Students will study the statistical patterns which can predict how genes, the units of heredity, can be transmitted from one generation to the next. The molecular structure of DNA, the carrier of most genetic information, will be studied. The molecular interactions that read the genetic code and express the function of the gene will be explored. The genetic control of development will be used to demonstrate how all these critical components can interact to create a complex organism. Finally, we will briefly cover statistical methods for describing gene distributions in large populations.

Students are expected to maintain civil behavior in class and to never interfere with the learning experience of other students. Cell phones and pagers should not be used during class. Talking and entering or leaving class during lecture should be kept to a minimum.

Students are responsible for being sure they are properly registered and carrying out the necessary paperwork if they drop or withdraw from the class. The instructor will not drop students who fail to attend class or lecture.

Students are expected to attend all lectures and to bring a ParSCORE Test Form 8000 to each exam. Exam material will mostly be drawn from the reading and assigned problems, but the important material will be indicated in class. Students should read and review the assigned material before the corresponding class lecture. There are recommended problems from the book, but none will be turned in or graded. The final grade will be determined by the sum of the scores of exams. There are a total of 550 points possible. Each of the three hour exams is worth 100 points. The final exam is cumulative and is worth 150 points. There will be a series of writing assignments done in conjunction with the Writing Center that will be worth 100 points. There are no extra credit assignments. Makeup exams are at the discretion of the instructor and require an appropriate excuse which must be GIVEN IN ADVANCE of the exam. In place of a makeup exam, the instructor may give a score equal to the average of all other hour exams minus 25%. Students who have unexcused absences from any exams will receive a grade of 'F' for the class.

Class web page is available through WebCT. Web site <http://webct.utsa.edu>. User name is the Banner ID without the @ sign. Password is birthdate entered as MMDDYYYY. It is recommended that you change your password as soon as possible.

The WebCT site will have copies of old exams and sample problems to prepare students for class examinations. Solutions will also be available for most of the problems, but it is highly recommended that students try to work the problems through before looking at the answer keys. Scores and cumulative grades will be posted if the system works. Students may e-mail the instructor through the WebCT system or at [aaron.cassill@utsa.edu](mailto:aaron.cassill@utsa.edu). The latter is recommended for faster communication.