

INTRODUCTORY GENETICS - BIOL 3350 - Fall 2018

Instructor: Dr. Janey Youngblom; jyoungblom1@csustan.edu
Office Hours: Tues. and Thurs . 12-1:30

Office Phone: 667-3487
Rm: N-265

Required Text: Concepts of Genetics, by Klug and Cummings. 12th edition (©2019)

<u>Date-week of</u>	<u>Topic</u>	<u>Reading (chapter)</u>
August 23	An Introduction to Genetics	1
August 28	Mitosis and Meiosis	2 and p.583-584
September 4	Mendelian Genetics View “Patterns of Inheritance” Genomic Education Module and take quiz (3 pts)- due Sept 17 View “Family History” Genomic Education Module and take quiz (3 pts)- due Sept 17	3 (omit Chi Square)
September 11	Extensions of Mendelian Genetics	4
September 18	EXAM 1 - 50 pts. (Tuesday) Sex Determination and Sex Chromosomes	7
September 25	Epigenetic Regulation of Gene Expression Video – Epigenetics – view link at home First Reflection paper due – September 25	19
October 2	Chromosome Mapping in Eukaryotes Genetic Analysis and Mapping in Bacteria and Bacteriophages	5 (only p, 94-101 and p.112-4) 6
October 9	Quiz #1 –(Oct. 9, Tuesday)- on Epigenetics Chromosome Mutations	8
October 16	EXAM 2 - (Oct. 16- Tuesday) – 50 pts. Extranuclear Inheritance	9
October 23	DNA Structure and Analysis DNA Replication and Recombination	10 11
October 30	Recombinant DNA technology Semi-lab examining TAS2R38 gene (DO NOT EAT OR DRINK DURING CLASS)	20
November 6	Applications and Ethics of Genetic Engineering and Biotechnology CRISPR &Genome Editing	22 Special Topics 649-660
November 13	CRISPR &Genome Editing continued Quiz #2 –(THURSDAY)- CRISPR &Genome Editing Review results from TAS2R38 gene test (Instructors will be attending conference in Atlanta all week, but classes WILL still be held)	
November 20	EXAM 3 - (Tuesday) – 50 pts. NO CLASS THURSDAY – THANKSGIVING	
November 27	Reflection Paper due – Nov. 27- (5 pts) The Genetic Code and Transcription Translation and Proteins	13 14
December 4	Population Evolutionary Genetics (Last day of class is Dec 6)	26
December 18	FINAL EXAM (TUESDAY, 8:30-10:30) - 75 pts. (COMPREHENSIVE)	

NOTES:

- Pre-requisites for this course are BOTY 1050, ZOOL 1050, and CHEM 1100, 1110, or equivalent.. You must have passed all these classes.
- The exams will be based on lecture material, assigned chapter readings, and material covered in the Mastering Genetics homework assignments. Each exam will consist of 4 sections: multiple choice, matching or True/False, essays, and problems. **BRING SCANTRON FORM NO. 882-E for each exam, including the final.**
- **Exams** - There are a total of 4 exams; 3 midterms and one final. Each midterm exam worth 50 pts. The final exam is cumulative and worth 75 pts. The total number of points from exams is 225 pts.
- **Quizzes** - There will be two quizzes, each worth 20 points. The quizzes will be based on readings assigned by the instructor. The total number of points for class quizzes is 40 points.
- **Mastering Genetics** – A maximum total of 50 EQUIVALENT points can be obtained by turning in your Mastering Genetics assignments before the deadline for each assignment. **Please mark the due dates for each assignment on your calendar.** You will not be able to get any credit if you try to turn in your assignments past the due date. **However, you get ONE pass that allows you to turn in ONE of your chapter assignments up to 2 days late without any penalty.** You must notify me BEFORE the 2 extra days deadline date for any given chapter if you want to use the pass.

To register for the Mastering Genetics program, go to <http://www.masteringenetics.com> Click the “Student” button. You will need to provide your student access code. It is a printed code provided with the purchase of your new textbook and is located inside the Mastering Genetics Student Access Kit. If you purchased a used textbook, you have the option to purchase an access code online during your registration process. You do NOT need to buy access to Virtual Labs. You also have the option to purchase an electronic version of your textbook.

In Mastering Geneicst, the name of the course is BIOL 3350-Fall 2016- Janey Youngblom. To register, enter the Course ID: **MGENYOUNGBLOM20718**

If you encounter any technical problems while conducting your work online, click the “Support” tab located near the upper right hand corner of your page.

- **Genomic Education Modules** – View two modules titled “Patterns of Inheritance” and “Family history. Take the quiz associated with each video, and pass with at least 50% correct. 3 points for each module. Total = 6 pts.

Due date: September 27

- **Reflection Papers** – There will be 2 reflection papers worth 5 points each, for a total of 10 points. Each paper should be 2 pages long, double spaced, 12 point font, 1” margins all around. You should write about your own personal thoughts after listening to or viewing the assigned piece.
 - 1)The first paper focuses on the new technology called CRISPR. Check Blackboard for the assigned material to review.
Due date: September 25. Submit your paper in class. (5 pts.)
 - 2)The second paper will be based on a video you will watch towards the end of the semester titled “In the family”. The site for this video will be provided on Blackboard.
Due date: November 27. Submit your paper in class (5 pts.)
- The total maximum number of points from all categories (exams, quizzes, Mastering Genetics, miscellaneous) is 331 points
- There will be no make up for missed exams or quizzes, unless you contact me before the test is given.

- This class can only be taken for a letter grade. Credit/no credit grading is NOT an option. The plus/minus grading system will be used as follows:

93.5-100%	= A
90-93%	=A-
87-89.5%	=B+
83.5-86.5%	=B
80-83%	=B-
77-79.5%	=C+
73.5-76.5	=C
70-73%	=C-
67-69.5%	=D+
63.5-66.5	=D
60-63%	=D-
<60%	=F