BIO 325 – GENETICS 69285
SUMMER 2018
Professor: Janice Fischer

SYLLABUS: COURSE INFORMATION AND POLICIES

WHAT THIS CLASS IS ABOUT

This class is about the exciting field of science called **GENETICS.** You're going to learn about what genes are, how genes work, how genes are inherited, how genes evolve, how your genes make you different from everyone else, how knowledge of genetics is enabling us to cure diseases, and how scientists are figuring all of this out.

The official BIO325 curriculum document is available on Canvas and here:
https://cns.utexas.edu/images/CNS/BIO325.pdf

In addition to learning the subject matter of GENETICS, the following are equally important to your success in this course:

- Critical thinking
- Quantitative analysis
- Applying your knowledge through problem-solving
- Self-motivated learning
- Learning by helping your peers

REQUIRED BOOKS AND CONNECT ACCESS

If you're OK with reading an ebook, all you really need for this class is access to the McGraw-Hill CONNECT website made specially for our class. If you like to read an actual book, you can obtain a hard copy of the book in addition to CONNECT from the COOP or directly from the publisher on-line (see Canvas for details).

Instructions/options for acquiring Connect access and a paper copy of the textbook are on Canvas.

You can enter the CONNECT website for our class on the course Home Page on Canvas.

You need 3 items that are all available on CONNECT:
(1) The Textbook (ebook on CONNECT; hard copy obtainable as looseleaf or hardback book)
Genetics: From Genes to Genomes – **6th edition** by Hartwell et al. (McGraw-Hill)

(2) The Solutions Manual and Study Guide (SMSG)
The Solutions Manual and Study Guide contains answers to all of the practice problems in the back of each chapter and other useful information. Some of these problems will be assigned as (ungraded) homework that is essential practice for applying your knowledge and therefore for exams. The SMSG is available online only – you will be able to access it through CONNECT. (You can download and print the pdfs if you want to.)

(3) Quizzes
We are going to use CONNECT for Quizzes that are the major determinant of your grade. They are meant to make you keep up with the course material. Each online Quiz on CONNECT that covers the material from the previous weeks. (Note that "weeks" is plural: any material from earlier in the course is fair game.)

Some advice: If I were you, I would obtain either a hardback or looseleaf version of the textbook in addition to the ebook that you get with CONNECT. The reason is that although Connect is fairly reliable, it is inevitable that it will go down sometimes……this could happen right when you've planned time to read the book. Of course, it's up to you, but I will not accept the Connect website going kaplooey as an excuse for not being prepared for class or for quizzes.

BRIEF OUTLINE OF YOUR RESPONSIBILITIES IN THIS COURSE

Preparation for Graded Activities:

- **Assigned Textbook Reading:** Do it before logging into class on Tuesday, Wednesday, and Thursday.
- **Homework Problems:** Do them before taking the Quizzes in order to achieve the Learning Objectives.

Graded Activities:

- **Group Question of the Day:** Be prepared to solve a problem in class with your peers.
- **Quizzes on Connect:** Be prepared for and take the 24 online quizzes that test your mastery of the Learning Objectives.

HOW YOU KNOW WHAT KNOWLEDGE AND SKILLS ARE EXPECTED OF YOU

- **Learning Objectives** listed for each Class (1-24) tell what you need to be able to do.
- **Homework Problems** from the end of each Chapter in Hartwell will be assigned for each Class (1-24); these will not be turned in or graded. You have the answers and explanations in the SMSG. These will enable you to achieve the Learning Objectives and do well on the Quizzes.
- **Class Powerpoints** for each Class (1-24); some of the Learning Objectives will be covered in class.

WHAT WILL HAPPEN IN CLASS ON TUES, WED, and THURS

- We will focus on some of the Learning Objectives.
- You are expected to come to class prepared, having done the assigned reading. If you are not prepared, you will not know what's going on.

- **GRADED Question of the Day:** During class, I will lead a discussion and you will also solve problems in groups. One of those will be the Question of the Day. Everyone in your group will get a grade of 1 for a reasonable, thoughtful answer or a zero.

- **PLEASE LOG IN TO CLASS ON TIME.** If you are late, you will receive a zero for the group activity whether you are there for that or not.

ACCESSING ONLINE COURSE MATERIALS

CANVAS serves as the sole entry point to the course – you can access our CONNECT site and ZOOM meetings from the CANVAS Front Page – as well as all other materials listed below.

CANVAS

Canvas will be used to post the following:

- Powerpoints used for the Class meetings
- A list of Learning Objectives for each class
- A list of assigned Homework Problems (from the back of each chapter in the book) for each class
- Important Announcements: Make sure that your email address associated with Canvas is accurate

Note: Pay no attention to the course grades that Canvas computes. Your course grade will be determined as explained below in this syllabus.

CONNECT

The Connect website will be used for Weekly Quizzes and to access the Solutions Manual and Study Guide (SMSG). The SMSG contains the answers to all the homework problems with explanations. (You can use Connect also for the ebook if you like.)

- Access Connect through the Home Page for our Course on Canvas.

ASSESSMENTS

(1) Quizzes on Connect: There will be 24 quizzes, one for each class period's Learning Objectives. Material that you've been quizzed on before is also fair game on each Quiz. The Quizzes will be available on Connect. Each Quiz has 5 questions worth 20 points each, and you have 20 minutes for each Quiz. Once you start the Quiz, you must finish it within 20 minutes; you cannot start and stop the Quizzes. Make sure that you take the Quizzes on a computer with a stable internet connection because if your computer loses its connection, the Quiz ends and I cannot reopen the Quiz for you.

The due dates for each Quiz are listed on Connect and also here:

Quiz	Due Date (11:59 pm)
1	June 17
2, 3, 4	June 24
5, 6, 7	July 1
8, 9,10	July 8
11, 12	July 15
13, 14, 15	July 22
16, 17, 18	July 29
19, 20, 21	Aug 5
22, 23, 24	Aug 8

You can submit the Quizzes any time before the due date. It's up to you to manage your time accordingly. You will see your Quiz score immediately after taking it. After the due date, you'll have access to each Quiz question and answer and be able to see what you did right and wrong.

You are meant to do the Quizzes on your own; each question comes from a large pool and so no two students will have the same Quiz.

If you don't understand the answer to any QUIZ question, or if you have another kind of issue with any Quiz question, please email me and include a screenshot and we'll sort it out.

(2) Question of the Day in Class: Everyone in your group will get a grade of 1 for a thoughtful answer or a zero. (You need to be present and on time to earn a 1 for the QotD.)

(3) Optional Comprehensive Final Exam: You can take an online Final Exam on Connect if you think that it will help your grade. It will be a multiple choice test on Thursday, August 9, covering the entire class.

HOW TO GET HELP

If you have questions about the reading, class material, homework problems – anything. Here are your options:

Email your classmates or your professor through Canvas. If the question is answerable through email, I would be happy to do that. I imagine that your classmates would be willing to do so also.

If answering the question you send through email requires face-to-face interaction, this can happen on Zoom. Each of you has a "personal room" on Zoom for instant, anytime meetings. You can find it in your profile (https://zoom.us/profile). Each of us can simply share our link with the person we want to meet with.

GRADES

Base Course Grade

Your final course grade will be computed as follows:
75% – Quizzes on Connect (Average of your best 20 out of 24)
25% – Class Question of the Day (Average of your best 20 out of 23; each grade is 0 or 1, so 20 = 100%, etc.)

If you take the optional comprehensive Final Exam:
35% – Quizzes on Connect
25% – Class Question of the Day
40% – Comprehensive Final Exam

Your final base course grade will be assigned, based on your curved score, using the following scale (each line is a grade increment):

95-100 A	84-86 B	74-76 C	64-66 D	<56 immovable F
90-94 A-	80-83 B-	70-73 C-	60-63 D-	
87-89 B+	77-79 C+	67-69 D+	57-59 movable F	

Using this method – everyone in the class can get an A. Please do!

How to Earn Extra Credit in this Class

If you **discover a mistake in the textbook or in the SMSG**, email me through Canvas. The mistake can be a tiny typo or a larger error. Anything. If you find a mistake that has not been noticed previously (I will let you know) you will earn a bonus point.

If you accumulate 5 or more bonus points during the semester, your grade will increase by one increment (for example, B to B+).

NOTE ABOUT GRADES: There is a strict NO CELL PHONE policy in my classroom. If you take out your phone even once during an online Class, your Question of the Day will count as 0. After the first time, in addition to losing your Question of the Day point, your course grade will be lowered by one increment for each offense. **LEAVE THE ONLINE ROOM IF YOU MUST USE YOUR PHONE.**

MAKE-UP POLICIES: In this fast-paced summer class, no extensions are possible for making up work. The course grade is designed to account for unexpected events that prevent you from attending class or from taking quizzes on time. You can miss 3 online classes with no penalty at all, and you can miss 4 quizzes with no penalty.

WHO IS JANICE FISCHER?

Who is Janice Fischer and why does she get to teach me Genetics? Good question! My CV is posted on Canvas. I am a tenured Full Professor here at UT. I am also the Director of the Biology Instructional Office. I earned my PhD in 1988 in Biochemistry and Molecular Biology at Harvard University. My research was about gene regulation using *Drosophila* (fruit flies) as a model system. Then I did postdoctoral research at UC Berkeley and MIT where I learned a lot more about *Drosophila* genetics and development. I started out as a Professor here at UT in 1993, and I have been teaching BIO 325 since 1996. For several years I taught an advanced genetics course for undergraduates, and for 10 years, I taught a graduate course about genetic model systems. My research involves the use of *Drosophila* as a genetic model system to understand molecular aspects of development, such as how cells communicate with each other to form patterns and organs. The most exciting academic endeavor I am involved with right now is co-authoring the textbook we are using and serving as the digital editor.