

Genetics: Tues/Thurs 9:30-10:50, Audb 100

Dr. Padilla, Associate Professor

Email: use Blackboard email message system

Office: LSB 220; Office Hours: After class, Tuesday 11:00-12:00; Thurs ~11:00-1:00

Prerequisite: Freshman Biology, concurrent enrollment or credit for organic chemistry

Text: Concepts of Genetics, 11th edition, 2015. Read the textbook information for the chapters discussed during lecture.

Blackboard Learn: Course information for lectures will be posted on blackboard. I recommend you check the blackboard website prior to the lecture, download ppt information and use as a supplement for class lectures.

Grades: Grades are based on 4 exams (100 points each) and 1 cumulative final exam (200 points). Exam format is multiple-choice. I will provide scantrons. Come to exams with a pencil. Grades will be posted on blackboard. It takes ~1 week for grades to be graded and posted.

Grading Scale: >540 Points = A; 539-480 = B; 479-420 = C; 419-360 = D; <359 = F

It is your responsibility to keep track of your grades.

No makeup exams: I do not give makeup exams. However, if you have a major illness, car accident etc. you need to provide me with the necessary documents to verify such. The final exam grade can then be used as a replacement for the missed exam. You must discuss this with me by the next class period following the exam. It is not in your best interest to miss an exam since the final exam is much more difficult.

Incomplete grade: Do not ask for an "I" grade unless you have a major life event that does not allow you to attend school. I will only give an incomplete grade under extraordinary circumstances. Please refer to the UNT policy regarding incomplete grades.

Disabilities: If you have a qualifying disability as defined by the ODA and need special accommodations, you must provide me with the paperwork by January 28.

Academic dishonesty will not be tolerated: Any student caught cheating in any form will be punished to the full extent of UNT regulations, including receiving a zero grade for the exam and an F for the course. Since this is a large class, there will be several versions of the exam.

Do not look at your peer's exam while taking the exam- as this is ground for a zero grade.

The key to doing well in this course:

- ❖ Attend Class and devote time to studying. Missing class leads to a decline in grades.
- ❖ Be engaged during lectures- which means listening, writing notes (do not rely on the ppt files), asking questions during class or meeting with me during office hours.
- ❖ Read the sections of the textbook that compliments the topics I discuss in class. The ppt lecture will contain images and figures from the textbook so it will be easy for you to determine which chapters and sections we are covering in class.
- ❖ I will post review study questions at the end of each week. Make sure you can answer these questions accurately and understand the concepts. Use as a study guide for exams.
- ❖ Do not procrastinate studying. Genetics is a challenging topic, has many terms and important concepts based on experimental evidence that you will need to learn.
- ❖ Come to my office hours. I enjoy meeting with and helping students on a one-on-one basis to help you learn complex and challenging concepts.
- ❖ Remember, it is up to you to make the initiative to learn the material- Study.
- ❖ I treat all of my hundreds of students equally. Thus, DO NOT ask for special privileges as I do not bend the rules for individual students. Equal treatment, fairness and clear communication are vital for success of the class as a whole.
- ❖ Do not be disruptive during class- it tends to annoy peers and may be asked to leave class.

Book	Tuesday	Class Topic	Thursday	Class Topic	Lab Topic
Ch1,2	Jan 19	Introduction Genetics Genetic Models	Jan 21	Cell Division, Mitosis Checkpoints, Meiosis	Genetic Models
Ch2,3	Jan 26	Meiosis Stem Cells	Jan 28	Mendelian Genetics Genetic Crosses	Cell division Stem Cells
Ch4	Feb 2	Extensions Mendelian Genetics Pedigree Analysis	Feb 4	Exam 1	Mendel Genetic Crosses <i>Drosophila</i>
Ch5	Feb 9	RNAi, DNA mutations Phenotype Analysis	Feb 11	Genetic Mapping	<i>C. elegans</i> RNAi
Ch7,8	Feb 16	Sex determination	Feb 18	Chromosomal Abnormalities	Phenotype Analysis
Ch10, 12	Feb 23	DNA and chromosome structure	Feb 25	Exam 2	PCR
Ch11 20	Mar 1	DNA replication Telomeres	Mar 3	DNA Techniques: PCR, sequencing etc.	PCR
Ch13, 14	Mar 8	Genetic Code RNA Transcription	Mar 10	Protein Translation Protein Structure	Exam 1
	Mar 15	Spring Break	Mar 17	Spring Break	
	Mar 22	Forward Genetic Screens	Mar 24	Exam 3	Forward Genetic Screen
Ch15, 16	Mar 29	DNA mutations DNA repair	Mar 31	Prokaryotic Gene Expression	Forward Genetic Screen
Ch17	Apr 5	Guest Lecture Teratogen Services	Apr 7	Eukaryotic Gene Expression	Forward Genetic Screen
Ch17	Apr 12	Epigenetics	Apr 14	Exam 4	Developmental Genetics
Ch18, 19	Apr 19	Developmental Genetics	Apr 21	Cancer Genetics	Presentations
Ch20, 21	Apr 26	Cancer Genetics DNA Technology & Genomics	Apr 28	DNA Technology & Genomics	Exam 2
Ch22, 24	May 3	Behavioral Genetics	May 5	Genetics & Ethics	
17	Final Exam: Thursday May 12 8:00AM-10:00AM				

This is a tentative schedule to guide students and is subject to change.

I included information for the lab for those of you taking the two classes concurrently
Check blackboard and attend lectures for updated information related to class schedule and content.

Few final notes: Genetics is a fascinating field that provides a foundation for the understanding, at the molecular level, all living systems. Genetics contributes to improving human health, is used to develop new technologies and is economically important to our society. Genetics impacts our lives- whether we know it or not. This class will provide you with a foundation to understand this **incredible area of science**. It may not always be easy- but I do hope you find how intellectually interesting Genetics is.

Have fun learning this semester!