

Dr. Pamela Padilla

Office: LifeScience Bld. B, Room 220

ppadilla@unt.edu**OFFICE HOURS:** Monday and Wednesday 10:00-11:30 AM.**TEXT:** *Concepts of Genetics* by Klug, Cummings, Spencer and Palladino, 10th edition, 2011.**PREREQUISITE:** FRESHMAN BIOLOGY. CONCURRENTLY ENROLLED IN OR CREDIT FOR ONE SEMESTER OF ORGANIC CHEMISTRY.**Course Information on Blackboard Site:** <https://ecampus.unt.edu/webct/entryPage.dowebct>

Supplementary information for the lectures (powerpoint files, homework, Study questions, web links etc.) will be on class website. **The web information is not a substitution for class attendance.** Extra information, problem solving, extra credit, and guidance/hints for exams will only be presented in the lectures.

GRADES: Grades are based on 3 Exams (100 points each) and 1 Final Exam (200 points). The final exam is cumulative. Exam Format: Multiple Choice, Short or Long Answer.

Typically, it will take at least 1 week to return graded exams. Exam grades will be posted on eCampus website. **Incomplete (I) Grade:** Do not ask for an "Incomplete" 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 new UNT policy regarding incomplete grades.

No makeup exams. I do not give makeup exams. However, if you have a major illness, car accident etc. and provide me with the necessary documents to verify such you may have the final exam grade replace your missed exam. You must discuss this with me immediately after you miss an exam. It is NOT in your best interest to miss an exam, since the final exam is much more difficult.

REVIEW QUESTIONS: Review questions will be posted on blackboard website periodically to help students study material.**EXTRA CREDIT:** Extra credit possibilities will be provided throughout the course. This information will be announced during the semester in lecture.**DISABILITIES:** If you have a qualifying disability as defined by the ODA and need special accommodations, you must provide me with the paperwork by Friday, January 30.**ACADEMIC DISHONESTY WILL NOT BE TOLERATED:** Any student caught cheating in any form will be punished to the full extent of University regulations, including but not limited to receiving a zero for the exam and an F for the course. Your exams will be copied before they are returned; therefore, any changed answers will be recognized and a zero will be given for the exam if one is dishonestly attempting to get more points.**The key to doing well in this course- Be responsible**

- **ATTEND CLASS** (on time!) I may take attendance periodically as need by UNT.
- If you miss class get lecture material from a classmate and see me during office hours if needed.
- Use the material on the web to supplement the information I discuss in class.
- Read the textbook assignments before lecture.

- Do the review questions. Exam questions may be based on review questions.
- DO NOT BE LATE FOR EXAMS!
- Do not procrastinate studying.
- Do not be disruptive during class- otherwise you will be asked to leave.
- See me during office hours if you have questions regarding the course material.
- Ask questions if you don't understand something (either during class or office hours).

TENTATIVE LECTURE SCHEDULE

EXAM 1 MATERIAL:

Ch 1, Introduction, Genetic Terms, Genetic Model Systems
 Ch 2 Mitosis, Cell Cycle Checkpoints, Meiosis, Stem Cells
 Ch 3 Mendelian Genetics, Pedigree Analysis, Human Genetic Diseases
 Ch 4 Extensions of Mendelian Genetics
 Intro to RNA interference (to assist with concept in Genetics Lab)
 Special Topics in Modern Genetics: Stem Cells

EXAM 1 Monday 2/13

EXAM 2 MATERIAL:

Ch 5, 6 Chromosome Mapping
 Ch 7 Sex Determination
 Ch 8 Chromosome Mutations
 Ch 9 Extranuclear Inheritance
 Ch 10 Structure and Analysis
 Ch 11 DNA Replication
 Ch 12 Chromosome Organization
 Genetic Screens (Genetics Lab Info)

EXAM 2 Monday 3/12

EXAM 3 MATERIAL:

Ch 13 Genetic Code, Transcription
 Ch 14 Translation, Proteins
 Ch 15 Gene Mutations
 Ch 16, 17 Gene Expression
 C 18 Development
 Special Topics in Modern Genetics: Epigenetics

EXAM 3 Monday 4/23

EXAM 4 MATERIAL:

Ch 19 Cancer
 Special Topics in Modern Genetics DNA Forensics
 Ch 20 Recombinant DNA Technology
 Ch 21 Genomics, Bioinformatics, Proteomics
 Ch 22 Ethics of Genetic Engineering and Biotechnology

May 4 No Class

FINAL EXAM AS PER UNIVERSITY FINAL EXAM SCHEDULE (May 10, 8-10AM)

Notes:

- This schedule is tentative and subject to change due to class dynamics and progress.
- Not all aspects of every chapter will be covered
- "Evolutionary Genetics" is an important subject in Biology/Genetics yet we often do not have time for completing this chapter. Thus, throughout the class I will incorporate discussions about evolution.
- **Spring break is March 19-23**
- TAs will proctor exams.
- We will try to coordinate information for lab and lecture