

Course Syllabus

Course Information

<i>Course Number/Section</i>	BIO 3351-001
<i>Course Title</i>	Secrets of Cells
<i>Term</i>	Spring 2013
<i>Days & Times</i>	Fridays 1:00 pm - 3:45 pm
<i>Class room</i>	FO 3.616

Professor Contact Information

<i>Professor</i>	Dr. Gail Breen
<i>Office Phone</i>	972 883-2504
<i>Email Address</i>	breen@utdallas.edu
<i>Office Location</i>	FN 3.108
<i>Office Hours</i>	Fridays 3:45pm- 4:45pm, or by appointment
<i>Teaching Assistants</i>	Mohammed Kanchwala: mohammed.kanchwala@utdallas.edu Rohan Rana: rrana2009@utdallas.edu Margaret Chenault: mx120631@utdallas.edu Rishi Patel: rap104020@utdallas.edu
<i>Information</i>	Please use the e-mail address above. I do not read e-learning.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

This class is a core science elective open to all majors.

Course Description

This course will examine the basic concepts of cell biology, including the structure of cells, the structure and function of DNA, genetic inheritance, mutations in DNA, gene therapy, stem cells, the immune system, and the endocrine system.

Student Learning Objectives/Outcomes

1. Students will be able to describe basic concepts of cell biology, including the structure of cells, the structure and function of DNA, genetic inheritance, mutations in DNA, gene therapy, and stem cells.
2. Students will be able to describe the function of several organ systems, including the immune system and the endocrine system.
3. Students will be able to apply scientific laws and principles of cell biology to arrive at problem solutions.
4. Students will be able to identify how experiments or observations validate or test scientific concepts.

Required Textbooks and Materials

Required Texts

Biology: Concepts and Applications, Starr, Evers and Starr, Eighth Edition, Brooks/Cole Cengage Learning
ISBN-13: 978-1-4390-4673-9/ ISBN-10: 1-4390-4673-5

Assignments & Academic Calendar

Topics, Reading Assignments, Due Dates, Exam Dates

Jan. 18	Introduction
Jan. 25	Secrets of the Cell Chapter 3: Molecules of Life Chapter 4: Cell Structure Chapter 5: Ground Rules of Metabolism (pg 84-89)
Feb. 1	DNA, The Amazing Double Helix Chapter 8: DNA Structure and Function Chapter 11: How Cells Reproduce
Feb. 8	Understanding the Basic Concepts of Genetics Chapter 11: How Cells Reproduce Chapter 12: Meiosis and Sexual Reproduction Chapter 13: Observing Patterns in Inherited Traits
Feb. 15	Genes, Mutations and Viruses Chapter 13: Observing Patterns in Inherited Traits Chapter 14: Human Inheritance
Feb. 22	Genetic Code: Transcription, Protein Synthesis and Mutations Chapter 9: From DNA to Protein Chapter 10: Controls over Genes Review
Mar. 1	EXAM 1 (covers material Jan. 18 through Feb. 22) 1.00 pm, Room MC2.410
Mar. 8	Gene Therapy Chapter 15: Biotechnology (pg. 232-233)
March 10 – March 16	Spring Break Holidays

- Mar. 22 Regenerative Medicine
Chapter 8: DNA: Structure and Function
(pg 132-133)
Chapter 15: Biotechnology (p230-231)
Chapter 28: Animal Tissues and Organ Systems
- Mar. 29 The Eukaryotic Cell Evolves
Chapter 18: Life's origin and early evolution
Chapter 28: Animal Tissues and Organ Systems
Review
- April 5 EXAM 2 (covers material from Mar. 8 through
March 29)
1:00 pm; Room MC2.410**
- April 12 Hormones: Messengers
Chapter 31: Endocrine Control
- April 19 Battle Scars- An Overview of Our Defense against
Disease
Chapter 34: Immunity
- April 26 Viruses: The Deadly Enemy/Influenza
Chapter 34: Immunity
Review
- May 3 EXAM 3 (covers material from April 12
through April 19)
1:00 pm; Room MC2.410**

Grading Policy

Exam 1- 35% grade
Exam 2- 30% grade
Exam 3- 30% grade
Attendance- 5% grade

A+ 97-100
A 93-96
A- 90-92
B+ 87-89
B 83-86
B- 80-82
C+ 77-79
C 73-76
C- 70-72
D+ 67-69
D 63-66
D- 60-62
F less than 60

Grade changes can only be made in the case of a clerical error.

Course Policies

Exams

Exams will begin promptly at **1:00 pm**. Students must be seated by 1:00 pm in order to take the exam. Any student not seated by 1:00 pm will either not be allowed to take the exam or points will be deducted for being late (1 point for every minute that a student is late). Once the first person has left the exam room, no late exams will be allowed. All issues regarding exam scores **MUST** be resolved **WITHIN SEVEN DAYS** of when the exam is returned and scores posted on e-learning. You will need a scantron form (F-1712-PAR-L) for each exam.

Make-up exams

No make-up exams are given except in the case of extreme documented emergencies. Students **MUST** contact the instructor by phone and email **within 24 hours** of any missed exam. All issues regarding exams **MUST** be resolved **WITHIN FIVE DAYS** of the exam dates. The score on a make-up exam cannot be higher than the average of the scores on the other exams. Missed exams will receive a zero score.

Extra Credit

N/A

Late Work

Not accepted. All exams must be taken on the assigned dates.

Special Assignments

N/A

Class Attendance

Class attendance is required. Attendance will be taken and will be worth 5% of your grade. A student cannot miss any more than 3 class periods in order to receive credit for the course. Each student will be allowed one missed class period due to a **documented** illness or emergency. It is your responsibility to make sure that you sign the attendance sheet to receive credit for attendance.

Classroom Citizenship

Any action that interrupts the lecture or disturbs your classmates is unacceptable.

Examples of such actions include:

- (a) Entering the classroom late.
- (b) Leaving the classroom before break or before the end of class.
- (c) Cell phones, buzzers, pagers etc. – these must be turned off unless you are a member of an emergency response team.
- (d) No computers or similar electronic devices are allowed during class periods except during the break.

Students should raise their hands to participate in the discussion or ask questions and avoid side conversations with other students.

Student Conduct & Discipline

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

For all examinations in this course, no books, notes, electronic devices, or hats will be allowed, and ID will be required. Students are not allowed to leave the room during an examination.

Email Use

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

Withdrawal from Class

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.

Incomplete Grade Policy

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.

Additional UTD policies are available at <http://go.utdallas.edu/syllabus-policies>

These descriptions and timelines are subject to change at the discretion of the Professor.