

Emerging Topics in Biology
SCI 5330-081
Summer 2016

Course Syllabus

Course Information

SCI 5330-081 Emerging Topics in Biology
Summer 2014 T & Th1:00-3:45 pm Location: SLC 1.214

Professor Contact Information

Professor Stephanie M. Taylor
Office: FN 3.308D
Office Phone: (972) 883-6044
Email: StephanieM.Taylor@utdallas.edu

Office Hours: by appointment

TA Contact Information

Course Description

The media frequently announce biology advancements and research that affect human health, basic living needs, and biology education without critical analysis, often resulting in confusing the public and curtailing scientific literacy. Examination of resources and methods to critically evaluate biological information and scientific articles for sound theory development, research methods, and practical application. Topics include recent discoveries in the life sciences that meet the needs of society, health, and environmental issues. Although the topics build on emerging issues, they may include content areas such as cell and molecular biology, agriculture, epidemiology, and global warming. Students will examine effective ways to bring in new curricula into established course settings. Advanced curriculum writing component focused on science literacy. Viewpoints include those of biological research scientists, health professionals, and science education researchers.

Student Learning Objectives/Outcomes

Students will be able to search and find new scientific articles, and evaluate them. Students will be able to read, comprehend, and use science articles, to determine the validity of pop science, popular media and blog articles.

Required Textbooks and Materials

All texts will be articles available to UTD students. No purchases are necessary.

It is recommended that students borrow or check out from the library a high school biology book for reference.

Assignments & Academic Calendar

Schedule and Topics (**subject to change**)

Week 1: Genetics, the human genome project, epigenetics

Week 2: The Cell, Respiration & Biochemistry

Week 3: Communicating to a classroom with Katie Donaldson

Project: Make Your Own Manipulative

Week 4: Cancer & The Immune System

Week 5: HIV, Ebola, Viruses & GMOs

Lab: Glowing Bacteria

Week 6: Catch up/Overflow, Nutrition, Hormones and the Body

Week 7: Invasive Species, Ecology

Week 8: (If time allows) Ozone hole and global warming

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

Grading

15% Attendance and in class participation

20% Pre-Postjournals, due 1 day before class. These will be due each week.

20% Science Daily

15% Homework/Other Assignments

15% Make Your Own Manipulative

15% End of Course Project (Lesson Plan or Other Approved Project)

Absences

Each student has three “free” absences. After their third absence, each additional absence will result in a 10% deduction to the attendance and participation grade. There are many ways to make this up. Please discuss any extenuating circumstances with the professor.

An absence will be EXCUSED if the student provides a doctor’s note within one week of returning to class, OR if the absence is for a university sponsored event, such as a sporting event or class field trip in which case proper documentation is required.

An absence will be UNEXCUSED if the student is sick without a doctor’s note, or is attending a student organization event.

Any special circumstances are up to the discretion of the professor.

Late Work

Late work will receive a 10% deduction PER day, including weekends.

This 10% deduction starts 24 hours after the due date.

ALL due dates for weekly assignments are at 11:59 p.m. on the day they are due. The 24 hour delay of the 10% deduction is to allow students to turn in assignments at 2 a.m. or 7 a.m. without penalty.

In the case of an EXCUSED absence, the student will be granted an additional 48 hours to complete any assignments without penalty. Further extensions are up to the discretion of the instructor.

Assignments

Prejournals – graded on completion and thoroughness, these thought questions serve to prime the discussion for class. Furthermore, these will be used as a starting place for discussions in class.

Postjournals – graded in part on completion and thoroughness, and part on correctness, these will contain both simple follow up questions and well as more in depth thought questions.

Science Daily – please see handout for details. The purpose of this assignment is to get you looking for fun, interesting, current science news.

Projects – please see handout for details. One will be due at the halfway point, the other due as a final project.

Course & Instructor Policies

Students are expected to attend class regularly, to prepare for each class session, to participate thoughtfully in class discussions, and to exhibit the best aspects of professional behavior. In all class room discussions, civility, tolerance, and reliance on data and logic are expected. If it is necessary to miss class, the student should contact the professor and make arrangements to complete any work missed. The class room policies are as described in other sections of this syllabus, and no extra credit, special assignments, et cetera, will be given.

Technical Support

If you experience any problems with your UTD account you may send an email to: assist@utdallas.edu or call the UTD Computer Helpdesk at 972-883-2911.

Field Trip Policies

Off-campus Instruction and Course Activities

Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at the website address http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean. Below is a description of any travel and/or risk related activity associated with this course.

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 printed 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, Series 50000, Board of Regents, The University of Texas System*, 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) and online at <http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-HOPV.html>

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, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

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.

Copyright Notice

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials, including music and software. Copying, displaying, reproducing, or distributing copyrighted works may infringe the copyright owner's rights and such infringement is subject to appropriate disciplinary action as well as criminal penalties provided by federal law. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright

Act. As a UT Dallas student, you are required to follow the institution's copyright policy (Policy Memorandum 84-I.3-46). For more information about the fair use exemption, see <http://www.utsystem.edu/ogc/intellectualproperty/copypol2.htm>

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.

Student Grievance Procedures

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. 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.

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.

AccessAbility Services

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for a course, please discuss it with an OSA staff member and allow at least one week's advanced notice. Students who have questions about receiving accommodations, or those who have, or think they

may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion.

The primary functions of the Office of Student AccessAbility are to provide:

1. academic accommodations for students with a documented permanent physical, mental or sensory disability
2. non-academic accommodations
3. resource and referral information and advocacy support as necessary and appropriate.

OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at disabilityservice@utdallas.edu.

If you anticipate issues related to the format or requirements of this course, please meet with the Coordinator of AccessAbility Services. The Coordinator is available to discuss ways to ensure your full participation in the course. If you determine that formal accommodations are necessary, it is very important that you be registered with AccessAbility Services to notify them of your eligibility for reasonable accommodations. AccessAbility Services can then plan how best to coordinate your accommodations. It is the student's responsibility to notify his or her professors of the need for such an accommodation. AccessAbility Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Days

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.