

University of North Texas at Dallas
Fall 2015
SYLLABUS

Course Abbreviation/Number/Title/Semester Hrs BIOL1082_030/330: Biology for Educators: 3 Hrs/0 Hrs	
Department of Life and Health Sciences	School of Liberal Arts and Sciences
Instructor Name:	Dr. Irene T. Rodriguez
Office Location:	Room 253, Founders Hall
Office Phone:	972-338-1525
Email Address:	Irene.Rodriguez@untdallas.edu
Office Hours:	Tuesday and Thursday: 9:00 - 10:00 am; or by appointment
Virtual Office Hours:	N/A
Classroom Location:	Lecture: ONLINE Laboratory: Room 255, Founders Hall (DAL2)
Class Meeting Days & Times:	Lecture: ONLINE Laboratory: Tuesday 10:00 am – 12:50 pm
Course Catalog Description:	Develop a meaningful and functional command of key biological concepts; an understanding of the interrelationships among all living things; and a correlation between what pre-service teachers are required to learn and what they will be required to teach. Includes laboratory. BIOL 1082D is a general biology course with laboratory designated for elementary and middle school education majors for seeking teacher certification. Note: this course may not be used to satisfy the laboratory science requirement for majors in the College of Arts and Sciences
Prerequisites:	None
Co-requisites:	BIOL 1082D_330 Laboratory
Required Text:	Lecture: Audesirk T, Audesirk G, Byers BE. 2014. <i>Biology: Life on Earth with Physiology</i> . Tenth Edition. Pearson Education, Inc., Glenview, IL, United States of America. ISBN-13: 978-0-321-79426-0 Laboratory Manual: Thompson R, Nugent J, King MK, Piccolo KC. 2007. <i>The Scope of Biology. From Cells to Ecosystems</i> . Kendall/Hunt Publishing Co. Dubuque, IA, United States of America. ISBN: 978-0-7575-4428-6
Recommended Text and References:	
Access to Learning Resources:	UNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt-dallas/library.htm UNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fheg.follett.com
Course Goals or Overview:	
	The goal of this course is to provide the student with a broad background in biology that can be used in elementary and secondary education. This course will provide a brief overview of the major topics within the biological sciences

Learning Objectives/Outcomes:	
1	Explore the natural sciences
2	Be able to locate, evaluate, and organize information including the use of information technologies
3	Be able to think critically and creatively, and learn to apply different systems of analysis
4	Develop problem solving skills that incorporate multiple viewpoints and differing contexts in their analysis
5	Cultivate intellectual curiosity and self-responsibility, building a foundation for life-long learning
6	Engage with a variety of others in thoughtful and well-crafted communication
7	Broaden and refine their thinking as a part of the give and take of ideas, seeking to better understand other's perspectives as well as their own

Learning Objective/Outcome Assessments

Objective 1–3, 5: Students perform a collaborative project in which they research a human disorder and the means of treatment. They then, as a group, present the information they have collected to the class using a variety of media including Power Point, Prezi, posters, or any combination of these. This project will introduce them to the tools required for research in many disciplines, and facilitate successful research in the future. Students are graded on the quality of content, quality of presentation, quality of references (two of which must be from a peer-reviewed journal and at least one from the internet), the extent to which they have thought critically about the feasibility of treatment and degree of exploration.

Objective 4: During the third midterm, students are presented an essay question in which they compare and contrast mechanisms of evolution and determine which of the mechanisms will consistently lead to adaptive evolution and why.

Objective 6 and 7: Students will participate in a discussion of evolution and other explanations of the origin of life. Students will be graded on their participation.

Assessments

Objective 1–3, 5:

1. Content of paper (15 points)
 - a) Does the scope of the paper adequately represent our current understanding of the topic? (5 points)
 - b) Has the material been organized in a clear and accessible manner? (5 points)
 - c) Are the tables, figures, diagrams appropriate for the content? (5 points)
2. Discussion of feasibility of treatment (10 points)
3. Citations (5 points)
 - a) 5 citations
 - i. 2 peer-reviewed publications (2 points)
 - ii. 3 other publications, including one from the internet (1 point)
 - b) Are the publications cited correctly in the text and in the "Literature Cited" section? (2 points)

Objective 4:

Score:	Description
4 – Exceeds expectations	The student demonstrates a complete knowledge of foundational concepts and is able to use those concepts to explain evolutionary phenomena or predict genetic consequences
3 – Acceptable	The student demonstrates a complete knowledge of foundational concepts, but is unable to use those concepts to explain evolutionary phenomena or predict genetic consequences
2 – Below expectations	The student attempts the item, but fails to complete it. The student shows limited knowledge, but is unable to adequately compare or predict from the available data
1 – Unacceptable	The student either does not attempt to complete the item, or is incapable of demonstrating knowledge of the basic concepts necessary to complete the item

Objectives 6 and 7:

Score:	Description
4 – Exceeds expectations	The student contributed to the discussion by offering his/her opinion, or by clarifying a topic of conversation. The information shared by the student will demonstrate that he/she has assimilated course curriculum and curriculum obtained from extra readings, or research, or both

3 – Acceptable	The student contributed to the discussion by offering his/her opinion, or by clarifying a topic of conversation. The information shared by the student will demonstrate that he/she has assimilated course curriculum
2 – Below expectations	The student contributed to the discussion, but the comments made by the student demonstrated a lack of understanding of course curriculum
1 – Unacceptable	The student did not contribute to the discussion

Online/Hybrid Course Outline

These schedules are subject to change by the instructor. Any changes to this schedule will be communicated by the instructor in class or by Blackboard announcement. Additional readings and activities may be added, these will be noted in the Readings and Activities/Assignments sections.

Lecture Schedule

WEEK OF	TOPIC	CHAPTERS	READING QUIZ
Aug 24	Introduction to Biology	1	
Aug 31	Atoms and Molecules	2, 3	1
Sep 7	Cells and Membranes	4, 5	2
Sep 14	Flow of Energy	6, 7, 8	3
Sep 14	Exam 1	2-8	
Sep 21	Cellular Reproduction (Mitosis and Meiosis)	9	4
Sep 28	Genetics and DNA	10, 11	5
Oct 5	Transcription, Translation, and Biotechnology	12, 13	6
Oct 5	Exam 2	9-13	
Oct 12	Evolution	14, 15, 16	7
Oct 19	Viruses, Prokaryotes, and Protists	18, 19, 20	8
Oct 26	Plants and Fungi	21, 22	9
Oct 26	Exam 3	14-16, 18-22	
Nov 2	Animal Diversity	23, 24	10
Nov 9	Ecology	26, 27, 28	11
Nov 16	Physiological Systems	<i>Selected from 31-36</i>	
Nov 23	Physiological Systems	<i>Selected from 37-42</i>	12
Nov 30	Exam 4	23-24, 26-28, Selected 31-42	
Dec 7	Final Exam	Comprehensive	

Laboratory Schedule

DATE	TOPIC	POINTS
Aug 25	– NO LAB –	-
Sep 1	Introduction and Lab Safety Movie: <i>Estrogen Effect</i>	10
Sep 8	DNA extraction	10
Sep 15	Presentations Unit I.- LIFE	20
Sep 22	Movie: <i>Corals</i>	10
Sep 29	Oompa Loompa Genetics and Building a Bee-bop (Part I)	10
Oct 6	Building a Bee-bop (Part II)	10
Oct 13	Presentations Unit III.- HUMAN SYSTEMS	20
Oct 20	Evolution: The Hardy-Weinberg Principle	10
Oct 27	Natural Selection	10
Nov 3	Presentations Unit IV.- ENVIRONMENTAL SYSTEMS	20
Nov 10	Movie: <i>Cane Toads</i>	10
Nov 17	Owl Pellet	10
Nov 24	Presentations.- SEMESTER PROJECT	50
Dec 1 / Dec 8	– NO LAB – Pre-finals week / Finals week	TOTAL: 200

Course Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

LECTURE: ONLINE through Blackboard

Participation in Discussion Board Forums (40 points) – This component involves communications between the instructor and the students and among students through Discussion Boards on Blackboard. Each participation or post is worth 5 points and each student should participate at least once on each Discussion Board. There will be two Discussion Boards before each exam period for a total of 8 Discussion Boards to get up to 40 participation points total. In order to get these participation points, your contribution should provide logic insight into the corresponding topic and not merely not-related comments or questions (although you are encouraged to ask questions through the Q & A Forum).

Quizzes (60 points) – These reading quizzes are meant to help you study for each exam. There will be 12 reading quizzes throughout the course, each worth 5 points, for a total of 60 points. Each quiz will only be available through Blackboard during one week, according to the schedule. A total of three quizzes will be available before each exam period. You will have up to three attempts to complete each quiz and the best grade will be recorded.

Exams (500 points) – You will be given four in-class examinations. Each exam is worth 100 points, and will consist of a combination of multiple choice, true-make true, short answer, and essay items. Any student found cheating on any exam will receive a zero (0) for that exam and may face other disciplinary action(s). In addition, a final comprehensive exam is required and it is worth 100 points.

LABORATORY: Room 255 (DAL2), Tuesdays from 10:00 am to 12:50 pm

Laboratory (200 points) – You will perform experiments designed to give you hands-on real-world applications of the lecture material. In some cases, you will watch documentaries to complement the experiments. After each laboratory exercise, you will have an assignment worth 10 points. **Each assignment is due at the beginning of the next lab session.** In addition, you will work within a group of students to present 3 topics (20 points each) and one semester project (50 points). You do not receive a separate grade for lab, so the points received for the laboratory (out of 200) will be added into the lecture grade calculation.

Note: The lab is worth 25% of your final overall grade for the course. However, you must receive a passing grade (60% or higher) in the laboratory to receive a passing grade in the class.

Students must pass both the lecture and the lab independently to pass the course (i.e. if you fail the lab, you automatically fail the entire course and if you fail the lecture, you automatically fail the entire course).

Grading Matrix

Instrument	Value	Total points
Participation in Discussion Boards	5.0 %	40
Reading Quizzes	7.5 %	60
Exam 1	12.5 %	100
Exam 2	12.5 %	100
Exam 3	12.5 %	100
Exam 4	12.5 %	100
Final Exam	12.5 %	100
Laboratory	25.0 %	200
Total	100 %	800

Grade Determination

A = 90% or better
B = 80 – 89 %
C = 70 – 79 %
D = 60 – 69 %
F = less than 60%

Course Policies and Procedures

Online Attendance and Participation

The University attendance policy is in effect for this course. Class attendance in the Blackboard classroom and participation is expected because the class is designed as a shared learning experience, and because essential information not in the textbook will be discussed in the discussion board. Online presence and participation in all class discussions is essential to the integration of course material and your ability to demonstrate proficiency. Attendance for this online or hybrid course is considered when you are logged in and active in Blackboard, i.e., posting assignments, taking quizzes, or completing Discussion Boards. To maintain financial aid award eligibility, activity must occur before the census date of the session or term of the course. Refer to <http://www.untDallas.edu/registrar> for specific dates. If you are absent/not active in the course shell, it is YOUR responsibility to let the instructor know immediately, upon your return, the reason for your absence if it is to be excused. All instructors must follow university policy 7.005 covering excused absences; however, it is the instructor's discretion, as outlined in the course syllabus, of how unexcused absences may or may not count against successful completion of the course

Technology Requirements

In order to successfully access the materials in an online or hybrid course, UNT Dallas advises that your computer be equipped with the minimum system requirements.

Blackboard Learn 9.1 is the platform software for this course. Blackboard Learn supports major web browsers such as Windows Internet Explorer, Apple Safari, Mozilla Firefox, and Google Chrome. However, since the latter two are updated continually, some recent versions may not be compatible. If you experience difficulty accessing or using components of the course, try using Internet Explorer. Also, no matter what browser you use, always enable pop-ups. For more information see:

<http://www.untDallas.edu/dlit/ecampus/requirements>

https://help.blackboard.com/en-us/Learn/9.1_SP_12_and_SP_13/Student/040_Browser_Support_for_SP_13

https://learn.unt.edu/bbcswebdav/institution/BrowserCheck/check_full.html

Online “Netiquette”

In any social interaction, certain rules of etiquette are expected and contribute to more enjoyable and productive communication. Emails, Discussion Board messages and/or any other forms of written communication in the online environment should use proper “netiquette” (i.e., no writing in all caps (usually denotes yelling), no curse words, and no “flaming” messages (angry, personal attacks).

Racial, ethnic, or gender slurs will not be tolerated, nor will pornography of any kind.

Any violation of online netiquette may result in a loss of points or removal from the course and referral to the Dean of Students, including warnings and other sanctions in accordance with the University's policies and procedures. Refer to the Student Code of Student Rights Responsibilities and Conduct at <http://www.untDallas.edu/osa/policies>. Respect is a given principle in all online communication. Therefore, please be sure to proofread all of your written communication prior to submission.

Inclement Weather and Online Classes

Online classes may or may not be effected by campus closures due to inclement weather. Unless otherwise notified by your instructor via e-mail, online messaging, or online announcement, students should assume that assignments are due as scheduled.

Bad Weather

This policy applies to laboratory sessions and only if the campus is closed. On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campus main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

Assignment Policy

Assignments are intended to reinforce material covered in lecture, and prepare you for the exams. Collaborative efforts on completing the assignments are encouraged so long as all member of the collaboration contribute equally. As with all other graded assessments, cheating will not be tolerated. While collaborations are encouraged, each student must submit their own work, which cannot be identical to the work submitted by the other members of the collaboration. Assignments should be turned in on time. **Late assignments will NOT be accepted.**

Exam Policy

Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook). Students are allowed to take make-up for ONLY ONE missed exam, with proper documentation. The instructor must be contacted within 24 hours of the exam to schedule a make-up. A makeup exam must be taken within one week of the original exam. If a student knows in advance that they will miss an exam, they must take the exam prior to the exam date. There is no make-up for the second or subsequent missed exams. Students should take the exam on time, before the deadline date and time. Any student caught cheating will automatically receive a 0 on the exam, and the instructor may pursue further disciplinary action.

Diversity/Tolerance Policy

Students are encouraged to contribute their perspectives and insights to class discussions in the online environment. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Dean of Students as the instructor deems appropriate.

Use of Electronic Gadgets in the Classroom/Lab

You are allowed to take notes or record the class using laptops/iPads/other electronic devices. However, the instructor reserves the right to ask you to discontinue use of an electronic device if it becomes disruptive to others in the classroom or lab.

Food/Drink Policy

No food or drinks are allowed in the laboratory.

University Policies and Procedures

Students with Disabilities (ADA Compliance)

Chapter 7(7.004) Disability Accommodations for Students

The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <http://www.untdallas.edu/disability>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Building 2, room 204.

Blackboard Learn Accessibility Statement

University of North Texas at Dallas is committed to ensuring its online and hybrid courses are usable by all students and faculty including those with disabilities. If you encounter any difficulties with technologies, please contact our ITSS Department. To better assist them, you would want to have the operating system, web browser and information on any assistive technology being used. Blackboard Learn course management system's accessibility statement is also provided: <http://www.blackboard.com/Platforms/Learn/Resources/Accessibility.aspx>

NOTE: Additional instructional technology tools, such as Turnitin, Respondus, Panopto, and publisher cartridge content (i.e. MyLab, Pearson, etc.) may NOT be fully ADA compliant. Please contact our Disability Office should you require additional assistance utilizing any of these tools.

Student Evaluation of Teaching Effectiveness Policy

Student's evaluations of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this

class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider students' evaluations to be an important part of your participation in this class.

Academic Integrity

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at

http://www.untDallas.edu/sites/default/files/page_level2/pdf/policy/7.002%20Code%20of%20Academic_Integrity.pdf for complete provisions of this code.

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

Web-based Plagiarism Detection: Please be aware in some online or hybrid courses, students may be required to submit written assignments to Turnitin, a web-based plagiarism detection service, or another method. If submitting to Turnitin, please remove your title page and other personal information.

UNT Dallas Learning Commons

Writing Center

The UNT Dallas Writing Center offers free, one-on-one or group tutoring services to all registered undergraduate and graduate students. Our goal is to help students write a good paper, and most importantly, become better writers. We work with students on any type of written or oral project and can help students at any stage of the writing process (from brainstorming and outlining to citing and looking over a final draft).

The Writing Center is located on the **3rd floor of DAL 1** (big glass structure in front of the stairs).

We are available for appointments during the following hours: **Mon-Thurs: 9:00am-7:00pm; Fri: 3:00pm-7:00pm; Sat: 10am-3:00pm**

To make an appointment, browse the Writing Center's online resources, or see a list of our student FAQ's, please visit www.untDallas.edu/wc. If students cannot come in for a face-to-face appointment, students can take advantage of our free online tutoring service through SMARTHINKING. To submit drafts and get more information about this service, visit www.untDallas.edu/smart.

To make the best use of your time, please bring as much information as possible with you to your appointment (assignment, grading rubric, previous graded papers from the class, etc.). The Writing Center will not proofread papers or talk with you about grades, but we will help you become better writers over time.

Math Lab

The UNT Dallas Math Lab offers free, one-on-one or group tutoring services to all registered undergraduate students. Our goal is to help students improve their math skills, succeed in all of courses requiring math, and learn math-related skills they will need post-graduation. We work with students enrolled in all MATH courses at UNT Dallas and provide limited assistance with STATS and ACCT courses.

The Math Lab is located on the **3rd floor of DAL 1 in room 336**. Students can walk-in at any time. Check the fall hours at: <http://www.untDallas.edu/ml>

If students cannot come in for face-to-face tutoring, students can take advantage of our free online tutoring service through SMARTHINKING. To get more information about this service, visit www.untDallas.edu/smart.