University of North Texas at Dallas
Spring 2016
SYLLABUS

Course Abbreviation/Number/Title/Semester Hrs **BIOL1082_030/302: 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:	Thursday: 2:30 - 3:30 pm; or by appointment
Classroom Location:	***Lecture:*** ONLINE ***Laboratory:*** Room 255, Founders Hall (DAL2)
Class Meeting Days & Times:	***Lecture:*** ONLINE ***Laboratory:*** Thursday 11:30 am – 2:20 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 1082 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 School of Liberal Arts and Sciences
Prerequisites:	None
Co-requisites:	BIOL 1082_302 Laboratory
Required Text:	***Lecture:*** Hillis DM, Sadava D, Hill RW, Price MV. 2014. *Principles of Life.* Second Edition. Sinauer/Macmillan, Sunderland, MA, United States of America. WITH LAUNCHPAD: ISBN-13: 978-1-4641-8983-8 **OR,** LAUNCHPAD ONLY (includes e-text): ISBN-13: 978-1-4641-8473-4 ***Laboratory Manual:*** Thompson R, Nugent J, King MK, Piccolo KC. 2007. *The Scope of Biology. From Cells to Ecosystems.* Kendall/Hunt Publishing Co. Dubuque, IA, United States of America. ISBN: 978-0-7575-4428-6
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: At the end of this course, students will be able to:

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, design, perform an experiment, analyze results, and present a topic in biology. 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).
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 which not 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 (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 these schedules 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

DATES	TOPIC	CHAPTERS	READING QUIZ	QUIZ DUE
Jan 19, 21	Principles of Life	1	1	Jan 22
Jan 26, 28	PART 1 Cells – Biologically Important Molecules	2, 3	2	Jan 29
Feb 2, 4	PART 1 Cells – Structure and Function	4, 5, 6	3	Feb 5
Feb 9, 11	***Complete, Review, and Exam 1 on Thursday Feb 11***	***1-6***		
Feb 16, 18	PART 2 Genetics – Cell Division and DNA	7, 8, 9	4	Feb 19
Feb 23, 25	PART 2 Genetics – Gene Expression and Regulation	10, 11	5	Feb 26
Mar 1, 3	PART 2 Genetics – Biotechnology	13	6	Mar 4
Mar 8, 10	***Complete, Review and Exam 2 on Thursday Mar 10***	***7-11, 13***		
Mar 14-20	**SPRING BREAK!**			
Mar 22, 24	PART 3 Evolution – Evolution, Phylogenies, Speciation	15, 16, 17	7	Mar 25
Mar 29, 31	PART 4 Diversity – Prokaryotes *versus* Eukaryotes	19, 20	8	Apr 1
Apr 5, 7	PART 4 Diversity - Plants and Fungi PART 5 Plant Form and Function	21, 22 26	9	Apr 8
Apr 12, 14	***Complete, Review and Exam 3 on Thursday Apr 14***	***15-17, 19-22, 26***		
Apr 19, 21	PART 4 Diversity – Animals Origin and Diversity PART 6 Animal Form and Function	23 Selected chapters	10	Apr 22
Apr 26, 28	PART 7 Ecology – Distribution, Populations, Interactions	41, 42, 43	11	Apr 29
May 3, 5	PART 7 Ecology – Communities, Global Ecosystems	44, 45	12	May 6
May 10	***Final Exam – Tuesday May 10***	***Comprehensive***		

Laboratory Schedule

DATE	TOPIC	POINTS
Jan 21	***– NO LAB –***	-
Jan 28	Introduction and Lab Safety / Movie: *Estrogen Effect*	10
Feb 4	DNA extraction	10
Feb 11	Movie: *Corals*	10
Feb 18	**Presentations Unit I.- LIFE**	**30**
Feb 25	Oompa Loompa Genetics and Building a Bee-bop (Part I)	20
Mar 3	VIDEO: *Natural Selection: the Rock Pocket Mouse* / Building a Bee-bop (Part II)	10
Mar 10	**Presentations Unit III.- HUMAN SYSTEMS**	**30**
Mar 14-20	**SPRING BREAK!**	-
Mar 24	VIDEO: *Evolution in the Galapagos* / Beaks of Finches	10
Mar 31	Owl Pellet	10
Apr 7	**Presentations Unit IV.- ENVIRONMENTAL SYSTEMS**	**30**
Apr 14	Movie: *Cane Toads*	10
Apr 21	**Presentations.- SEMESTER PROJECT**	**70**
Apr 28	***– NO LAB – Pre-finals week***	**-**
May 12	***– NO LAB – Finals week***	**TOTAL: 250**

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, thus each student should participate at least twice on each Discussion Board to get up to 10 points. You must complete one Discussion Board before each exam period for a total of 4 Discussion Boards to get up to 40 participation points total. Your contribution should provide logic insight into the corresponding topic and not merely a question (although you are encouraged to ask questions through the Q&A Forum).

LaunchPad Activities (60 points) – These are twelve brief activities on the ***LaunchPad*** platform or another website that will reinforce your understanding of selected materials. It is recommended that you complete one activity per week. Each activity is worth 5 points, for a total of 60 points.

LaunchPad LearningCurves (100 points) – On the ***LaunchPad*** platform each chapter of your book has a series of questions (known as LearningCurve) that will test your reading comprehension. There is no grade for this assignment, simply by completing the questionnaire you will get the corresponding 5 points per chapter. Out of the 26 scheduled chapters, you will have to complete 20 LearningCurves to get up to 100 points.

Quizzes (100 points) – These reading quizzes are meant to help you study for each exam. There will be 12 reading quizzes throughout the course, each worth 10 points, for a total of 120 points, which includes 20 extra points. Each quiz will only be available through Blackboard during one week, as specified in the lecture schedule.

Exams (450 points) – You will be given three 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 150 points.

LABORATORY: FACE-TO-FACE in room 255 (DAL2), Thursdays from 11:30 am to 2:20 pm

Laboratory (250 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 (30 points each) and one semester project (70 points). You do not receive a separate grade for lab, so the points received for the laboratory (out of 250) 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	4 %	40
LaunchPad Activities	6 %	60
LaunchPad LearningCurves	10 %	100
Reading Quizzes	10 %	100
Exam 1	10 %	100
Exam 2	10 %	100
Exam 3	10 %	100
Final Exam (*Comprehensive*)	**15 %**	**150**
Laboratory	**25 %**	**250**
Total	**100 %**	**1000**

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

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.

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.

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.

Classroom Policies

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

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.

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.

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.

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

Use of Electronic Gadgets in the 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.

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; Sun: closed.***
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 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.