University of North Texas at Dallas FALL 2025 SYLLABUS

BIOL 3510-0001 Cell Biology: 3Hrs			
Department of	**Life & Health Sciences**	**School of**	**Liberal Arts & Sciences**
Instructor Name:	Dr. Kelly Varga		
Office Location:	**Dal 2 office 249**		
Email Address:	*kelly.varga@untdallas.edu*		
Office Hours:	Tuesdays and Thursdays 9-11 am; if you need additional times please email me directly and we can set something up!		
Class Meeting Days & Times:	**Tuesdays and Thursdays, 11:30am-12:50pm, DAL 1, 262**		
Course Catalog Description:	**BIOL 3510** Structure and function of animal and plant cells with emphasis on cell membranes, cytoplasmic organelles and the nucleus.		
Prerequisites:	BIOL 1710 and 1720 (General Biology I and II for majors)		
Required Text:	Alberts et al. **Essential Cell Biology (w/ Access Code).** 6th Ed. **ISBN 13: 9780393680362**		

Access to Learning Resources: **Learning Commons:** https://learning.untdallas.edu/	**UNT Dallas Library:** phone: (972) 780-1616 web: https://library.untdallas.edu/home **UNT Dallas Bookstore:** phone: (972) 780-3652 web: https://www.bkstr.com/northtexasatdallasstore/home
Supported Browsers: Chrome 67 & 68 Firefox 60 & 61 Flash 29, 30 (for audio/video) Internet Explorer 11 Edge 41, 42 Respondus Lockdown Browser Safari 10, 11 **Supported Devices:** iPhone Android Chromebook *(Tablet users can use the Canvas app)*	**Getting Help with Canvas:** **Canvas 24/7 Phone Support for Students: 1-833-668-8634 Canvas Help Resources:** **Web:** Canvas Student Guide **For additional assistance, contact Student Assistance (Distance Learning):** DAL 1, Room 157 phone: (972)338-5580 email: distancelearning@untdallas.edu ***If you are working with Canvas 24/7 Support to resolve a technical issue, make sure to keep me updated on the troubleshooting progress.*** ***If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me during office hours or by email.***

Screen Readers:
VoiceOver (Safari) JAWS (Internet Explorer) NVDA (Firefox)
Note: There is no screen reader support for Canvas in Chrome

OF NOTE: If you are a MacBook User: You will need to turn off your pop-up blocker in order to access online platforms

Learning Objectives/Outcomes: *At the end of this course, the student will*	
1	Appreciate the great diversity of cellular forms and understand the interrelatedness of cellular form and function.
2	Be able to explain the synthesis and function of macromolecules, including DNA, RNA and proteins
3	Be able to understand the dynamic nature of the cell, including how it receives and responds to information from its environment.
4	Understand intracellular signaling cascades and their impact on cellular activities, including cytoskeleton rearrangements, motility and regulation of gene expression.
5	Understand mechanisms of cell cycle regulation.
6	Be able to critically analyze the scientific evidence underlying our current understanding of cellular processes.

Course Outline

This schedule is subject to change by the instructor. Any changes to this schedule will be communicated in class or via class email or Canvas announcement. Additional readings and activities may be added, these will be noted in the Readings and Activities/Assignments sections.

Course Schedule

This may be subject to change at anytime. The professor will supply adequate time and reasoning in addition to notification if anything is changed to the schedule below.

TOPICS	Assignments Due	DATE
	UNIT I	
The Cell (Chapter 1)		**T 8/26**
The Cell (Chapter 1)	Register for Smartworks online platform; complete the "Why Trust Science?" Activity	**Th 8/28**
Proteins (Chapter 4)		**T 9/2**
Proteins (Chapter 4)	Chapter 1: Problem Set by 11:59 PM	**Th 9/4**
DNA and Chromosomes (Chapter 5)		**T 9/9**
DNA and Chromosomes (Chapter 5)	Chapter 4: Problem Set by 11:59 PM	**Th 9/11**
Central Dogma (Chapter 7)	Chapter 5: Problem Set by 11:59 PM	**T 9/16**
Central Dogma (Chapter 7)		**Th 9/18**
Catch up/Review	Chapter 7: Problem Set by 11:59 PM	**T 9/23**
Exam I (Chapters 1, 4, 5 and 7)	**EXAM I in class, Thursday, September 25th** **Hard Deadline for All HW for EXAM 1 (Chapters 1,4,5, and 7)**	**Thursday 9/25**
Discussion Board #1	**Discussion Board #1 due by SUNDAY 9/28 PM**	**Sunday 9/28**
	UNIT II	
Membrane Structure (Chapter 11)		**T 9/30**
	Dr. Varga Out of Town for a Conference: No Class	**Th 10/2**

Membrane Structure (Chapter 11)		**T 10/7**
Membrane Transport (Chapter 12)	Chapter 11 Problem Set	**Th 10/9**
Membrane Transport (Chapter 12)		**T 10/14**
Overview of Energy Extraction (Chapter 13)	Chapter 12: Problem Set by 11:59 PM	**Th 10/16**
Overview of Energy Extraction (Chapter 13)		**T 10/21**
Mitochondria (Chapter 14)	Chapter 13: Problem Set by 11:59 PM	**Th 10/23**
Mitochondria (Chapter 14)	Chapter 14: Problem Set by 11:59 PM	**T 10/28**
Exam II (Chapters 11, 12, 13 & 14)	**EXAM II in class, Thursday, October 23rd** **Hard Deadline for All Homework for Chapters 11, 12, 13 & 14**	**Th 10/30**
Discussion Board #2	**Discussion Board #2 due by SUNDAY 11/2**	**Sunday 11/2**
UNIT III		
Intracellular Compartments (Chapter 15)		**T 11/4**
Intracellular Protein Sorting and Transport (Chapter 15)		**Th 11/6**
WITHDRAWL DEADLINE		**FRIDAY 11/7**
Cell Communication (Chapter 16)	Chapter 15: Problem Set by 11:59 PM	**T 11/11**
Cell Communication (Chapter 16)		**Th 11/13**
Catch up or Study Day	Chapter 16: Problem Set by 11:59 PM	**T 11/18**
Exam III (Chapters 15 and 16)	**EXAM III in class, Thursday, November 13th** **Hard Deadline for All Homework for Chapters 15 & 16**	**Th 11/13**
Discussion Board #3	**Discussion Board #3 due by SUNDAY 11/16**	**Sunday 11/16**
UNIT IV		
Cell Division (Chapters 18)		**T 11/18**
Cell Division (Chapters 18)	Chapter 18: Problem Set by 11:59 PM	**Th 11/20**
NO CLASS	***THANKSGIVING BREAK***	***T 11/25***
Cancer Biology (Chapter 20)		**T 12/2**

Cancer Biology (Chapter 20)	Chapter 20: Problem Set by 11:59 PM	**Th 12/4**
Discussion Board #4	**Discussion Board #4 due by SUNDAY 12/2 11:59 PM**	**F 12/2**
Exam IV (Chapters 18 and 20)	**Exam IV in class, Thursday December 11th 11:00AM – 1:00PM** **Hard Deadline for all Homework for Chapters 18 and 20**	**Thursday 12/11**

Course Evaluation Methods

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

- **Exams:** There will be 4 exams worth 100 points each.
  Exams will be held in person; no online exams. Each exam will be held on Thursdays (see schedule for exam due dates). They will cover the material presented in the Unit Covered**.**

- **Canvas Discussion Assignments:** There will be 4 discussion board assignments that will correspond to each unit of the course presented to you as a case study, observation, research creative response or research design. You are required to respond thoughtfully to each discussion board topic.

  Each discussion board is worth 15 points. Grades for the discussion board will be based on the correctness and thoroughness of your response. Your response should demonstrate an understanding of the unit's material. Most questions will require at least a thoughtful, well-written paragraph response; thus a few words or sentences will not provide the adequate response and/or understanding of the material. Do not wait until the deadline to post your discussion board response.

- **Opening "Why Trust Science?" Activity and Registration-** This activity is meant to introduce you to the platform, register and be introduced to some opening topics that we will cover in the course. This activity due date and points will follow the same instruction as the Smartworks Chapter Homework and Problem Set Due Dates.

- **Smartworks Chapter Homework and Problem Sets –** 12 Homework and Problem Sets, each worth 30 points (360 points total). Chapter problem sets are due by 11:59 PM on dates stated – please see the syllabus schedule for due dates. Initial HW due dates are the ACTUAL due dates for HWs. If you miss a deadline but submit the homework by the deadline, however, you can earn half credit for that homework assignment! **Any submission received after the exam the chapter is covered on will receive no credit.**

- **Class Participation** – **c***lass attendance and participation are highly encouraged***.** While class attendance and participation will not be a graded component of your final grade, it is up to the instructor's discretion to offer short assignments and/or ask questions for extra credit throughout the lectures. You must attend and participate in class to earn these points. Any in-class extra credit opportunities cannot be made-up outside of class.

Grading Matrix:

Instrument	Value (points)
Exam 1	100
Exam 2	100
Exam 3	100
Exam 4	100
Discussion Boards 4 assignments (15 points each)	60
"Why Trust Science?" Opening Acitvity	10
Smartworks Homework and Problem Sets 12 assignments, 30 points each)	360
Total:	**830**

GRADE DETERMINATION
A = 90% or better
B = 80% - 89.9%
C = 70% - 79.9%
D = 60% - 69.9%
F = less than 60%

COURSE EXPECTATIONS – *this course will be time consuming*. A general expectation is that for every credit hour earned, a student should spend 3 hours per week working outside of class during a regular 16-week semester. Hence, a 3-credit course might have a minimum expectation of 9 hours of reading, study, etc. for a 16-week semester, beyond the scheduled class time. Accordingly, your time management is crucial for success in this course. I do not recommend waiting until the due date to complete your assignments for the week. Late assignments will not receive credit and due date extensions will not be granted. Finally, having a job or other obligations that will take you away from the course, attendance or completion of assignments on time in accordance with the syllabus will not be accepted. If you know your work is demanding and you are unable to complete assignments or exams on time, then I highly encourage you to take the course when you are able to commit the time.

LATE WORK, ASSIGNMENTS, AND INCOMPLETES
I do not accept late work. Justification is only based on an extreme circumstance and absolutely must be covered by supporting documentation. I also will not issue an Incomplete for any course that is missing over 25% of work completed. If you are experiencing a severe medical issue or concern, justification for work missed must be presented no longer than 2 weeks after. Extreme cases are unique and handled on a case by case basis and at the professor's discretion. Finally, do not come to me in the last 3 weeks of class asking if you can make up for your missing assignments; this classwork is your responsibility.

COURSE ANNOUNCEMENTS
Course announcements (due date reminders, schedule changes, additional instruction, etc.) will be communicated via Canvas Announcements. Please be sure to enable the notification settings for announcements in Canvas. To do this, log into Canvas > Account (global navigation bar) > Notifications > make sure the check mark for Announcements is highlighted green.

E-MAIL COMMUNICATION
When communicating with instructors and other professionals, you are expected to communicate in a professional and formal manner. The best method to communicate with me is via email. ***Please send all emails to my faculty e-mail address kelly.varga@untdallas.edu.*** I will *typically* respond to your email within 24 hours. ***Students are also required to***

use their UNT-Dallas e-mail account in this class.

The University of North Texas at Dallas has adopted the University email address as an official means of communication with students. I will not send emails to alternate accounts. Students are responsible for checking their e-mail regularly. Important announcements and course information will be sent via Canvas. With this in mind, you should either routinely log into Canvas or forward your Canvas messages to your e-mails. **Additionally, an email that has no appropriate title "Hello Professor or Hello Dr. Varga" and included name of who you are and the class/assignment/work you are referring to will go unanswered.**

CANVAS ONLINE LEARNING PLATFORM

Technology Assistance: In order to successfully access the materials in your course, UNT Dallas advises that your computer be equipped with the minimum system requirements listed below. If you experience difficulty accessing or using components of the course, try using Google Chrome browser. If you still experience technical difficulties, first, notify your instructor. If the problem is still not resolved, call Student Assistance (Distance Learning) at the phone number listed on the first page of the syllabus. Also, no matter what browser you use, always enable pop-ups. For more information see:

UNT Dallas Canvas Technical Requirements

Canvas Instructure Supported & Unsupported Operating Systems

University Policies and Procedures

Students with Disabilities (ADA Compliance):

The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA). Students' with documented disabilities are responsible for informing faculty of their needs for reasonable accommodations and providing written authorized documentation. Grades assigned before an accommodation is provided will not be changed as accommodations are not retroactive. For more information, you may visit the Student Life Office, Suite 200, Building 2.

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 https://untsystem.policytech.com/dotNet/documents/?docid=1278&public=true for complete provisions of this code.

Course Evaluation 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.*

Inclement Weather and Online Classes: Unless otherwise notified by your instructor via e-mail, online messaging, or online announcement, students should assume that assignments are due as scheduled.

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 for this course, UNT Dallas advises that your computer be equipped with the minimum system requirements.
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