

Biol 1408.001.002

Course Syllabus: Fall 2022

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

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This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

| Office | Monday | Tuesday | Wednesday | Thursday |
|--------|----------|---------|-----------|----------|
| Hours | 8 – 9:30 | 8 – 11 | 8 – 9:30 | 8 – 11 |
| | | | | 1:30 - 3 |
| | | | | |

Course Description: 4 credit hours.

Lecture/Lab/Clinical: Three hours of lecture and three hours of lab each week.

Provides a survey of biological principles with an emphasis on humans, including chemistry of life, cells,

structure, function, and reproduction. Lab activities support these topics.

Prerequisite(s): None

Student Learning Outcomes:

Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.

Use critical thinking and scientific problem-solving to make informed decisions in the laboratory. Communicate effectively the results of scientific investigations.

Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.

Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.

Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results. Identify the importance of karyotypes, pedigrees, and biotechnology.

Identify parts of a DNA molecule, and describe replication, transcription, and translation.

Analyze evidence for evolution and natural selection.

Evaluation/Grading Policy:

Connect Assignments 20% Unit Exams (6) 35% Lab 25% Final Exam 20%

Grade Assignment:

A = 90-100% B = 80-89% C = 70-79% D = 60-69% F = 0-59%

Required Instructional Materials: Mader, Essentials of Biology, 6e

Publisher: McGraw Hill ISBN Number: 9781264260546

Optional Instructional Materials: Biology I For Non-Majors Lab Manual; Hearron

Minimum Technology Requirements: Internet Access; Microsoft Office or Google Suite

Required Computer Literacy Skills: Blackboard; Microsoft Office or Google Suite

Course Structure and Overview:

Attendance via zoom is mandatory and will affect your grade as in class quizzes will count as zeros if you are absent for any reason.

Required Reading: Chapters 1 – 16 in textbook

Communications: Please utilize my email for communication purposes. I will get back to you within 24 hours of your email. I do not typically return emails between the hours of 9 pm – 6 am. I have office hours every day either via zoom or one day a week on campus – don't hesitate to contact me during my office hours.

Institutional/Course Policy:

Northeast Texas Community College is a "community of scholars." Please remember that you and all of the students in this class are pursuing very important goals in your lives. All colleges and universities must remain diligent in their pursuit of assuring the academic integrity of their courses to maintain their accreditation status with Southern Association of Colleges and Schools and the Texas Higher Education Coordinating Board.

Your success can be maximized and your potential achieved by making the commitment to meet these expectations:

Schedule and plan to complete all lecture and laboratory assignments and submit them when they are due. Be sure to print off the calendar to help you keep up with assignment due dates. Late work will not be accepted.

Be sure to do all of your own work. Collusion and plagiarism are acts of academic dishonesty. Work that is copied and pasted directly from any website is not acceptable in any form on any assignment, lab or test. See the Student Handbook, p. 90 for definitions of collusion, plagiarism, and cheating. Infractions can result in severe grading penalties or failure.

The last day to drop the course with a grade of "W" is Tuesday, November 15. If circumstances require you to withdraw from this course, you must do so by that date. It is the student's responsibility to initiate the withdrawal with the registrar's office. Failure to officially withdraw will result in your receiving a grade of F.

Alternate Operations During Campus Closure and/or Alternate Course Delivery Requirements

In the event of an emergency or announced campus closure due to a natural disaster or pandemic, it may be necessary for Northeast Texas Community College to move to altered operations. During this time, Northeast Texas Community College may opt to continue delivery of instruction through methods that include, but are not limited to, online through the Blackboard Learning Management System, online conferencing, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor NTCC's website (http://www.ntcc.edu/) for instructions about continuing courses remotely, Blackboard for each class for course-specific communication, and NTCC email for important general information.

Additionally, there may be instances where a course may not be able to be continued in the same delivery format as it originates (face-to-face, fully online, live remote, or hybrid). Should this be the case, every effort will be made to continue instruction in an alternative delivery format. Students will be informed of any changes of this nature through email messaging and/or the Blackboard course site.

NTCC Academic Honesty/Ethics Statement:

NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:

It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Week 1 Biology the Science of Life
Week 2 The Chemical Basis of Life
Week 3 Organic Molecules of Life

Unit 1 Chapter 1 – 3 All assignments due by 9/4; Exam 9/7-9/8

Week 4 Inside the Cell
Week 5 The Dynamic Cell

Unit 2 Chapter 4 – 5 All assignments, labs and exam due by 9/18; Exam 9/21-2/22

Week 6 Energy for Life Week 7 Energy for Cells

Unit 3 Chapter 6 – 7 All assignments, labs and exam due by 10/2; Exam 10/3-10/4

Week 8 Cellular Respiration

Week 9 Meiosis/ Patterns of Inheritance

Unit 4 Chapter 8 – 10 All assignments, labs and exam due by 10/16; Exam 10/19-10/20

Week 10 DNA Biology

Week 11 Biotechnology and Genomics
Week 12 Mutations and Genetic Testing

Unit 5 Chapter 11 – 13 All assignments, labs and exam due by 11/6; Exam 11/9-11/10

Week 13 Darwin and Evolution
Week 14 Evolution on a Small Scale
Week 15 Evolution on a Large Scale

Unit 6 Chapter 14 – 16 All assignments, labs and exam due by 11/17; Exam 11/30-12/1