



## **Biology 1408**

### **Introduction to Biology I**

### **Summer I 2023**

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

**Instructor Name: Professor Kathy Moore**

**Office:** MS 116

**Phone:** 903-434-8292 (leave a message with JoAnn Rodriguez)

**Email:** [kmoore@ntcc.edu](mailto:kmoore@ntcc.edu)

**Office Hours:** after class

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

*The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.*

#### **Course Description:**

4 credit hours: Lecture/Lab: 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. Note: Additional course fee(s) required.

**Prerequisite(s):** None

**Required Instructional Materials:** Mader: Essentials of Biology, 6th ed with Connect Inclusive Access

**Publisher:** McGraw Hill **ISBN Number:** Available through NTCC Bookstore

**Optional Instructional Materials:** none

#### **Minimum Technology Requirements:**

- Internet capable desktop, laptop, or Chromebook (Tablets/iPads/Phones not recommended)

**Required Computer Literacy Skills:** Blackboard; Microsoft Office

- Web browsing skills for working with the online homework system
- Ability to use Blackboard for access to course information and assignments
- Competent and professional emailing skills: Emails should have the following format in subject line: Last Name, First Name -Course ID: Example: Smith, Jon - BIOL 1408.881

#### **Student Learning Outcomes:**

1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.

4. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
5. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
6. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
7. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
8. Identify the importance of karyotypes, pedigrees, and biotechnology.
9. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
10. Analyze evidence for evolution and natural selection.

**Evaluation/Grading Policy:**

**Final grades will be calculated as follows:**

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

**CONNECT ASSIGNMENTS/QUIZZES 15%**  
**4 TESTS 40%**  
**LABORATORY 30%**  
**FINAL EXAM 15%**

**Lectures and Labs:**

	<b>Lecture</b>	<b>Lab</b>
Week 1 -	Chapter 1 – The Science of Life Chapter 2 – The Chemical Basis of Life Chapter 3 – The Organic Molecules of Life <b>Exam 1</b>	Introduction to Biology Lab Ex. #1 The Microscope Ex. #2 Cell Chemistry Chapter 4 – Intro
Week 2 -	Chapter 4 – Cellular Structure Chapter 5 – The Dynamic Cell  Chapter 6 – Energy of Life <b>Exam 2</b>	Ex. #3 The Cell Ex. #4 Diffusion and Osmosis Ex. #5 Enzymes Ex. #6 Photosynthesis Chapter 7 Intro
Week 3 -	Chapter 7 – How Cells Harvest Energy  Chapter 8 – Cellular Reproduction  Chapter 9 - Meiosis <b>Exam 3</b>	Ex. #7 Anaerobic and Aerobic Respiration <b>Lab Practical #1 Ex. 1-7</b>  Ex. #8 Mitosis and Meiosis Chapter 10 Intro
Week 4 -	Chapter 10 – Mendel’s Laws Chapter 11 – DNA Chapter 12 – Biotechnology and Genomics  <b>Exam 4</b>	Ex. 9 Mendelian Genetics Ex. 10 Non-Mendelian Genetics Ex. 11 Molecular Genetics and DNA Fingerprinting Ex. 12 Bacterial Transformation

**Final Exam**

**Evaluation/Grading Policy:**

There will be 4 major exams and 1 comprehensive final exam during the course of the semester. The test average (40%), quizzes and Connect assignment grades (15%), and final exam (15%) will be weighted and averaged to produce your lecture grade, which accounts for 70% of the total course grade. Laboratory work accounts for 30% of your final course grade. Daily lab work including pre-lab quizzes and lab reports (15%) and 2 lab practicals (15%).

**Tests/Exams:**

The lecture exams may include both objective (multiple choice, true-false, matching) and subjective questions over notes and text material and any additional reading that may be assigned. Scantrons will be required for exams. If you are aware of a pending absence from class, notify me as early as possible. THERE IS NO MAKEUP FOR MISSED QUIZZES or HOMEWORK.

**Assignments:**

Weekly quizzes and/or homework will be administered, covering reading assignments and lecture material. Some of the homework must be completed online from assignments posted in Blackboard. Each of the online assignments will have a posted due date for completion.

**Other Course Requirements:**

All students will need a notebook and pens or pencils. Tests must be taken with a #2 pencil. You will need 7 scantrons for lecture exams, final exam and for lab practicals.

**Institutional/Course Policy: Withdraw Date**

The last day to withdraw from the course in **June 28, 2023**. Discontinuing with the course without officially dropping the course by this date will result in a grade earned, in most instances an "F". A stoppage in attendance does not equate to dropping the course.

**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

**Academic Calendar:**

<b>2023 Summer Semester</b>	
First Class Day (1st 5-week and 10-week sessions)	6/5/2023
Late Registration Ends (1st 5-weeks)	6/5/2023
Late Registration Ends (10-weeks)	6/7/2023
Juneteenth Holiday	6/19/2023
Last Day to Withdraw with a Grade of "W" (1st 5-weeks)	6/28/2023
Deadline for Summer Graduation Application	6/29/2023
Independence Day Holiday	7/4/2023
Last Class Day/Final Examinations (1st 5-weeks)	7/6/2023
---> MW Evening Classes (1st 5-weeks)	7/5/2023
---> TR Evening Classes (1st 5-weeks)	7/6/2023
First Class Day (2nd 5-week session)	7/10/2023
Late Registration Ends (2nd 5-weeks)	7/10/2023
Last Day to Withdraw with a Grade of "W" (10-weeks)	7/27/2023
Last Day to Withdraw with a Grade of "W" (2nd 5-weeks)	8/3/2023
Last Class Day/Final Examinations (2nd 5-weeks)	8/10/2023
---> MW Evening Classes (2nd 5-weeks)	8/9/2023
---> TR Evening Classes (2nd 5-weeks)	8/10/2023
Summer Graduation	8/11/2023