



BIOL 1408 – Introduction to Biology I (Online)

Course Syllabus: Spring 2023

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

Professor James Ward

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Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Online
	8:30-9:30	8:30-12:30	8:30-9:30	8:30-12:30		

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.

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

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, scientific problem-solving, and teamwork to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Describe the characteristics of life.
5. Explain the methods of inquiry used by scientist.
6. Identify the basic properties of substances needed for life.
7. Compare and contrast viruses, prokaryotic cells, and eukaryotic cells.
8. Describe the structure of cell membranes and the movement of molecules across a membrane.
9. Identify the substrates, products, and important chemical pathways in metabolism.
10. Identify the principles of inheritance and solve classical genetic problems.
11. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
12. Describe the unity and diversity of life and the evidence for evolution through natural selection.

Evaluation/Grading Policy:

Grading Points (1200 points):

100 points – Connect Online Assignments (3500 pts)

100 points – Blackboard Discussion Posts

500 points – Lecture Exams (5)

300 points – Lab Average

200 points – Final Exam

Grade Assignment:

A = 90-100% (1080-1200 pts)

B = 80-89% (960-1079 pts)

C = 70-79% (840-959 pts)

D = 60-69% (720-839 pts)

F = 0-59% (0-719 pts)

Connect Online Assignments:

Each chapter has an assigned Smartbook activity, chapter assignment, and chapter quiz to check your understanding of chapter topics and reading assignments. These are completed online in Connect which is accessed through blackboard. You will need to login to blackboard on the 1st day of the semester. Students will work at their own pace prior to due dates. Activities and Assignments are not timed. The chapter quizzes each consist of 20 questions with a 25 minute timer. Each assignment has a posted due date for completion. Students will need to earn 3,500 connect points out of the 4,400 possible to earn a 100 for their connect grade. Every 100 points over 3,500 will be worth 1 extra credit point for a maximum of 9 extra credit points or a grade of 109. **Connect chapter assignments are always due on Saturdays at 11:59pm. These dates are firm – no makeups for missed online work will be allowed.**

Blackboard Discussion Posts:

Chapter readings, videos, and discussions will be assigned to check your understanding of chapter topics. These are completed online in blackboard chapter content folders. Students will critically write scientifically by participating via posts in discussion board threads for each chapter. Students will post an initial response to each chapter discussion thread by **Wednesday** of each week with 2 follow up posts replying to other students posts by **Friday** each week. Each post must be a minimum of 100 words and contain and least 2 scientific points for credit. The sum of all posts will determine the discussion board grade.

Lecture Tests/Exams:

The lecture exams may include both objective questions (multiple choice, matching, etc.) over text materials, and readings as well as descriptive questions requiring detailed explanations over broad themes. Success on the exams is a function of anxiety regulation, test prep, study strategies, and studying for retention. Retention requires repetitions, which requires time! The 5 unit exams will be accessed through blackboard. They will be completed **online via Connect monitored by Proctorio**. Each exam is 100 questions worth 100 points with a 90 minute timer. Exams will not be made up for any reason as multiple days exist for students to complete the exams. **Exams will open on Thursday and close the following Tuesday at 11:59pm. The Tuesday due dates are firm – no makeups for missed exams will be allowed.**

Lab Portfolio:

Lab Kits are required for online lab portion of the course. These are purchased through the NTCC bookstore. Each Lab Unit has a Lab Workbook (docx file) to download and complete while conducting the experiments at home. All supplies needed are provided in the kits other than common household items. Students will work on lab at their own pace prior to due dates. NOTE: Some labs take multiple days to complete. **The weekly Lab Workbooks (docx file) are always due on Sundays at 11:59pm. These dates are firm – no makeups for missed labs will be allowed.**

Proctored Final Exam:

A comprehensive exam will be accessed through blackboard. It will be given **online via connect monitored by Proctorio**. Each exam is 200 questions worth 200 points with a 150 minute timer. **The Final Exam will open on Thursday, May 4th and close on Wednesday, May 10th at 11:59pm. The Wednesday due date is firm – no makeups for missed exams will be allowed.**

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

Publisher: McGraw Hill

ISBN Number: Available through NTCC Bookstore

Required Instructional Materials: eScience Introductory Biology Version 1 Lab Kit 1286

Publisher: eScience

ISBN Number: Available through NTCC Bookstore

Optional Instructional Materials: none

Minimum Technology Requirements:

- Internet capable desktop, laptop, or chromebook (Tablets/ipads/Phones not recommended)
- Microsoft Office for Lab Workbook in Microsoft Word
- Video conferencing capability with webcam and microphone using Zoom
- Access to printer if hard copies of assignments are desired

Required Computer Literacy Skills: Blackboard; Microsoft Office; Zoom

- Web browsing skills for working with the online homework system
- Ability to use Blackboard for access to course information and assignments
- Functional use of Microsoft Office and ability to insert images into word docs
- Ability to use camera and microphone for video and sound in zoom
- Competent and professional emailing skills
 - Emails should have the following format in subject line: Last Name, First Name -Course ID
 - Example: Ward, James - BIOL 1406.001

Student Expectations:

- Adhere to Classroom Etiquette including Zoom Virtual Classroom (see addendum in Blackboard)
- Adhere to Proctored Exam Etiquette (see addendum in Blackboard)
 - Proctored exams are monitored by McGraw Hill through Connect with Proctorio
 - Students will be recorded in the following ways during proctored exams:
 - Video, Audio, Screen, and Environment
 - Testing Violations from all recordings will be reported by Proctorio

Communications: Turnaround time for email responses is 24 hours during workweek.

NTCC email is the official form of communication used by the college.

Institutional/Course Policy: Withdraw Date

The last day to withdraw from the course in **Thursday, April 20th**. 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.

Eagle ASSIST:

At Northeast Texas Community College, we understand that students often need support that extends beyond the classroom. "Eagle Assist" is the place to start when looking for that type of assistance. Our support system is here to help you succeed in both your academic and personal growth.

Services provided at <https://www.ntcc.edu/student-services/eagle-assist>

- [Mental Health Counseling](#) (visit www.thevirtualcaregroup.com/ntcc to activate your account)
- [Classroom Accommodations](#)
- [NTCC Care Center Food Pantry](#)
- [NTCC Care Center Hygiene Closet](#)
- [NTCC Care Center Cook Nook](#)
- [Financial Literacy](#)
- [Child Care Assistance](#)
- [Emergency Aid](#)

Send us a message at eagleassist@ntcc.edu

*Dual credit students please email jstewart@ntcc.edu if interested.

BIOL 1408 ONLINE COURSE SCHEDULE

All 4 credit college courses require 9 hours of lecture work per week and 3 hours of lab course work per week. Typically 6 hours are done on campus in class with an instructor and the remaining 6 hours are spent working outside of scheduled class time. Online courses are no different except all 12 weekly work hours are done outside of scheduled class time. You will work at your own pace and can always work ahead but never behind. The online course weekly schedule will go from Monday to Sunday as follows:

SAMPLE LECTURE WEEK

Monday – Complete Chapter Reading and Notation Assignments

Tuesday – Review Blackboard Video and Content in Chapter Resource Folder

Wednesday – Complete Initial Chapter Discussion Board Post

Thursday – Make Final Preparations Needed to Successfully Complete Upcoming Assignments

Friday – Reply to 2 Posts on Chapter Discussion Boards

Saturday – Chapter Connect Assignments Due

SAMPLE LAB WEEK

Monday – Complete Learning Objectives, Knowledge Checks, and Lab Drill

Tuesday – Review Lab Assignments & Procedures; Download Lab Workbook (docx file)

Tuesday to Sunday – Work on Lab Experiments

Sunday – Lab Workbook (docx file) Due

Tentative Course Timeline:

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

BIOL 1408

Online Lecture

Online Lab

Week 1: JAN 16-22

Orientation/Syllabus

Syllabus Agreement Due Jan 21

Syllabus Quiz Due Jan 21

LAB 0 Getting Started

Lab Safety Contract Due Jan 22

Week 2: JAN 23-29

CH 1 Biology: Science of Life

CH 1 Connect Due Saturday Jan 28

LAB 1 Intro to Science & LAB 2 Lab Safety

Lab 1 & 2 Workbooks Due Sunday Jan 29

Week 3: JAN 30-FEB 5

CH 2 Chemical Basis of Life

CH 2 Connect Due Saturday Feb 4

LAB 3 Chemical Bonding

Lab 3 Workbook Due Sunday Feb 5

Week 4: FEB 6-12

CH 3 Organic Molecules of Life

CH 3 Connect Due Saturday Feb 11

LAB 5 Chemistry of Life

Lab 5 Workbook Due Sunday Feb 12

EXAM 1 over CH 1-3 (available online Thur, Feb 9 – Tue, Feb 14)

Week 5: FEB 13-19

CH 4 Inside the Cell

CH 4 Connect Due Saturday Feb 18

LAB 4 Microscope & LAB 10 Cell Structure

Lab 4 & 10 Workbooks Due Sunday Feb 19

Week 6: FEB 20-26

CH 5 Dynamic Cell - Transport

LAB 6 Diffusion & LAB 7 Osmosis

Lab 6 & 7 Workbook Due Sunday Feb 26

Week 7: FEB 27-MAR 5

CH 5 Dynamic Cell – Enzymes

CH 5 Connect Due Saturday Mar 4

LAB 8 Enzymes

Lab 8 Workbook Due Sunday Mar 5

EXAM 2 over CH 4-5 (available online Thur, Mar 2 – Tue, Mar 7)

Week 8: MAR 6-12

CH 6 Energy for Life - Photosynthesis

LAB 20 Photosynthesis

CH 6 Connect Due Saturday Mar 11

Lab 20 Workbook Due Sunday Mar 12

SPRING BREAK: MAR 13-17

Week 9: MAR 20-26

CH 7 Energy for Cells – Respiration

LAB 9 Cellular Respiration

CH 7 Connect Due Saturday Mar 25

Lab 9 Workbook Due Sunday Mar 26

EXAM 3 over CH 6-7 (available online Thur, Mar 23 – Tue, Mar 28)

Week 10: MAR 27-APR 2

CH 8 Cellular Reproduction

LAB 11 Mitosis

CH 8 Connect Due Saturday Apr 1

Lab 11 Workbook Due Sunday Apr 2

Week 11: APR 3-9

CH 9 Sexual Reproduction

LAB 12 Meiosis

CH 9 Connect Due Saturday Apr 8

Lab 12 Workbook Due Sunday Apr 9

EXAM 4 over CH 8-9 (available online Thur, Apr 6 – Tue, Apr 11)

Week 12: APR 10-16

CH 10 Patterns of Inheritance

LAB 14 Mendelian Genetics

CH 10 Connect Due Saturday Apr 15

Lab 14 Workbook Due Sunday Apr 16

Week 13: APR 17-23

CH 11 DNA Biology

LAB 13 DNA and RNA

CH 11 Connect Due Saturday Apr 22

Lab 13 Workbook Due Sunday Apr 23

Week 14: APR 24-30

CH 12 Biotechnology; CH 13 Mutations LAB 15 Population Genetics

CH 12 & 13 Connect Due Sat Apr 29

Lab 15 Workbook Due Sunday Apr 30

EXAM 5 over CH 10-13 (available online Thur, Apr 27 – Tue, May 2)

Week 15: MAY 1-7

Review for Final Exam

Week 16: WED, MAY 10

FINAL EXAM DUE over CH 1-13 (available Thur, May 4 – Wed, May 10)