



# BIOL 1408 – Introduction to Biology I (Online)

Course Syllabus: Fall 2022

“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
	3:00-4:30 Online	9:00-9:30 4:30-5:00	8:00-9:30 11:00-12:30 3:00-4:30 Online	9:00-9:30 4:30-5:00	Any Time By Appointment	Any Time By Appointment

***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 (3000 pts)

100 points – Blackboard Discussion Posts

500 points – Lecture Exams (5)

300 points – Lab Portfolio

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 1<sup>st</sup> 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. 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.**

### 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, Dec 1st and close on Wednesday, Dec 7th at 11:59pm. The Wednesday due date is firm – no makeups for missed exams will be allowed.**

**Required Instructional Materials:** Mader: Essentials of Biology, 6<sup>th</sup> 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; Microsoft Teams, 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 Teams/Zoom
- Competent and professional emailing skills

**Communications:** Turnaround time for email responses is 24 hours during work week.

- **NTCC email is the official form of communication used by the college.** Do NOT email from personal email accounts.
- Emails should have the following format in subject line: Last Name, First Name - Course ID
  - Example: Ward, James - BIOL 1408.088

**Student Expectations:**

- Adhere to Classroom Etiquette including Zoom/Teams Virtual Classroom
- 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

**Institutional/Course Policy: Withdraw Date**

The last day to withdraw from the course in **Tuesday, November 15<sup>th</sup>**. 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.

**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.

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

Online course schedules are not affected by campus closures. In the event of prolonged power outages affecting internet access, the schedule may be extended. If this is the case, announcements will be posted in Blackboard.

**Telehealth Virtual Care**

All NTCC students have access to Telehealth Virtual Care for medical needs, mental health needs, and life coaching. This is an invaluable service provided to students for no cost. Enroll at [thevirtualcaregroup.com/ntcc](http://thevirtualcaregroup.com/ntcc)

# 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 suggested weekly online course schedule will go from Monday to Sunday as follows; however, you can work at your own pace: **STAY AHEAD!!!**

## LECTURE SAMPLE SCHEDULE

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

## LAB SAMPLE SCHEDULE

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: AUG 22-28

**Orientation/Syllabus**

Syllabus Agreement Due Aug 27

Syllabus Quiz Due Aug 27

**LAB 0 Getting Started**

Lab Safety Contract Due Aug 28

Week 2: AUG 29-SEP 4

**CH 1 Biology: Science of Life**

CH 1 Connect Due Saturday Sep 3

**LAB 1 Intro to Science & LAB 2 Lab Safety**

Lab 1 & 2 Workbooks Due Sunday Sep 4

Week 3: SEP 5-11

**CH 2 Chemical Basis of Life**

CH 2 Connect Due Saturday Sep 10

**LAB 3 Chemical Bonding**

Lab 3 Workbook Due Sunday Sep 11

Week 4: SEP 12-18

**CH 3 Organic Molecules of Life**

CH 3 Connect Due Saturday Sep 17

**LAB 5 Chemistry of Life**

Lab 5 Workbook Due Sunday Sep 18

**EXAM 1 over CH 1-3 (available online Thur, Sep 15 – Tue, Sep 20)**

Week 5: SEP 19-25

**CH 4 Inside the Cell**

CH 4 Connect Due Saturday Sep 24

**LAB 4 Microscope & LAB 10 Cell Structure**

Lab 4 & 10 Workbooks Due Sunday Sep 25

Week 6: SEP 26-Oct 2

**CH 5 Dynamic Cell - Transport**

**LAB 6 Diffusion & LAB 7 Osmosis**

Lab 6 & 7 Workbook Due Sunday Oct 2

**Week 7: OCT 3-9**

**CH 5 Dynamic Cell – Enzymes**

CH 5 Connect Due Saturday Oct 8

**LAB 8 Enzymes**

Lab 8 Workbook Due Sunday Oct 9

**EXAM 2 over CH 4-5 (available online Thur, Oct 6 – Tue, Oct 11)**

**Week 8: OCT 10-16**

**CH 6 Energy for Life - Photosynthesis**

CH 6 Connect Due Saturday Oct 15

**LAB 20 Photosynthesis**

Lab 20 Workbook Due Sunday Oct 16

**Week 9: OCT 17-23**

**CH 7 Energy for Cells – Respiration**

CH 7 Connect Due Saturday Oct 22

**LAB 9 Cellular Respiration**

Lab 9 Workbook Due Sunday Oct 23

**EXAM 3 over CH 6-7 (available online Thur, Oct 20 – Tue, Oct 25)**

**Week 10: OCT 24-30**

**CH 8 Cellular Reproduction**

CH 8 Connect Due Saturday Oct 29

**LAB 11 Mitosis**

Lab 11 Workbook Due Sunday Oct 30

**Week 11: OCT 31-NOV 6**

**CH 9 Sexual Reproduction**

CH 9 Connect Due Saturday Nov 5

**LAB 12 Meiosis**

Lab 12 Workbook Due Sunday Nov 6

**EXAM 4 over CH 8-9 (available online Thur, Nov 3 – Tue, Nov 8)**

**Week 12: NOV 7-13**

**CH 10 Patterns of Inheritance**

CH 10 Connect Due Saturday Nov 12

**LAB 14 Mendelian Genetics**

Lab 14 Workbook Due Sunday Nov 13

**Week 13: NOV 14-20**

**CH 11 DNA Biology**

CH 11 Connect Due Saturday Nov 19

**LAB 13 DNA and RNA**

Lab 13 Workbook Due Sunday Nov 20

**Week 14: NOV 21-27\***

\*(Thanksgiving Week)

**CH 12 Biotechnology; CH 13 Mutations LAB 15 Population Genetics**

CH 12 & 13 Connect Due Sat Nov 26\*

Lab 15 Workbook Due Sunday Nov 27\*

**EXAM 5 over CH 10-13 (available online Thur, Nov 24\* – Tue, Nov 29)**

**Week 15: NOV 28-DEC 4**

**Review for Final Exam**

**Week 16: DEC 5-7**

**FINAL EXAM over CH 1-13 (available Thur, Dec 1 – Wed, Dec 7)**