



# BIOL 1408.001 – Introduction to Biology I (Online)

## Course Syllabus: Spring 2024

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

**Dr. Chris T. McAllister (Dr. Mac), Ph.D., Univ. North Texas**  
**Postdoctoral Fellow in Internal Medicine (VA Medical Center-Dallas)**

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**Email:** [cmcallister@ntcc.edu](mailto:cmcallister@ntcc.edu) (preferred method of messages)

Office Hours	Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-11:30am	8:00-9:30am	9:00-11:30am	8:00-9:30am	None (off campus-research)

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

**Disclaimer:** The instructor reserves the right to alter this syllabus as necessary with full disclosure to the student. This syllabus and schedule is articulated as an expectation of class topics, learning activities, and expected student learning. However, the instructor reserves the right to make changes in this schedule at any time that, within his professional judgment, would result in enhanced or more effective learning on the part of the students. These modifications will not substantially change the intent or objectives of this course and will be done within the policies and procedures of NTCC. *This may include the test schedule or topics of discussion in either lecture or laboratory. 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 (SLOs):

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.

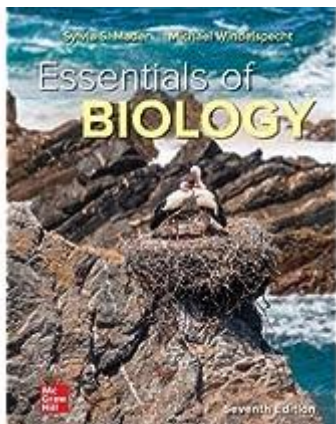
8. Describe the structure of cell membranes and the movement of molecules across a membrane.
9. Identify the substrates, products, and important chemical pathways in metabolism.
10. Identify the principles of inheritance and solve classical genetic problems.
11. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
12. Describe the unity and diversity of life and the evidence for evolution through natural selection.

**Required Instructional Materials:** Mader and Windelspecht, 2024, Essentials of Biology, 7e, McGraw-Hill; **Publisher:** ISBN Number: 978-1-266-09331-9 (with CONNECT)

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

**Publisher:** eScience

**ISBN Number:** Available through NTCC Bookstore (see below)



*For the lab material: Go to the bookstore to purchase kit code. Or, you can place an order online and the access code will be mailed to you. You will redeem your code and the kit will be mailed to you.*

[www.ntccbookstore.com](http://www.ntccbookstore.com)

**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 TEAMS
- Access to printer if hard copies of assignments are desired

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

- 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
- Competent and professional emailing skills
  - Emails should have the following format in subject line: Last Name, First Name -Course ID
    - Example: McAllister, Chris - BIOL 1408.001

**Student Expectations:**

- Adhere to Classroom Etiquette including Zoom or TEAMS Virtual Classroom (see addendum in Blackboard)
- Adhere to Proctored Exam Etiquette or (see addendum in Blackboard)
  - Proctored exams are monitored by McGraw Hill through Connect with Proctorio or Respondus Lockdown Browser
    - 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 or Respondus Lockdown Browser and those found in violation will receive a zero for that exam, one time. Do not risk a second violation!

### **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. **You will work at your own pace and can always work ahead but never get behind.** Activities and Assignments are not timed and all are due at the end of the semester (see below). The chapter quizzes each consist of 20 questions with a 25 min. timer. 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. **All Connect chapter assignments are due at the end of the semester on May 3<sup>rd</sup>, 2024 at midnite.**

### **Lecture Tests/Exams:**

The lecture exams may include both objective questions (multiple choice, matching, etc.) over text materials, and readings as well as the powerpoint for that chapter. 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 4 unit exams will be accessed through blackboard. They will be completed **online via Connect monitored by Proctorio or via Respondus Lockdown Browser.** 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 Wednesday at 8am and close the following Friday at 5:00pm. The Friday 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. The final lab is due on April 28<sup>th</sup> by midnite.**

### **Proctored Final Exam:**

The final exam will be accessed through blackboard. It will be given **online via connect monitored by Proctorio or Respondus Lockdown Browser.** The exam is 100 questions worth 200 points with a 90 min. timer. **The Final Exam will open on Monday, May 6<sup>th</sup> and close on Wednesday, May 8<sup>th</sup> at 5:00pm. The Wednesday due date is firm – no makeups for missed exams will be allowed.**

### **Class Report:**

You will provide a **REQUIRED** special written report in this class on topics provided by the professor. This a requirement, and counts 100 pts. You will email the report on or before the due date to me at: [cmcallister@ntcc.edu](mailto:cmcallister@ntcc.edu). **It is due on April 28<sup>th</sup> by midnite.** The specs for the report will eventually be posted, please stay tuned.

**Late Work:** I do not accept late work. Deadlines are meant to be met when they are set.

**Communications:** NTCC email is the official form of communication used by the college. The instructor will try to respond to student emails within 24 hrs of receipt (except on weekends). **You should NOT expect an immediate response from your instructor in reply to your email.** While I will try to respond in a timely fashion, I do not always have my phone on my person, and I do not have notifications set on my

phone to alert me the moment an email arrives in my inbox. (On the weekends it may be up to 48 hrs after receipt of email). Feedback and grades on assignments and postings will be posted 48 to 72 hrs after due date/time of assignment. Email me at: [cmcallister@ntcc.edu](mailto:cmcallister@ntcc.edu)

**Withdrawal Date:** The last day to drop (withdraw from) the course with a grade of “W” is **Thursday, April 18<sup>th</sup>, 2024**. 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. Dr. Mac adds the following:

**Acts violating the expected academic integrity include:**

1. Cheating on examinations, quizzes, or other written work;
2. Giving assistance to or receiving assistance from another during an examination or quiz;
3. Plagiarism, defined as:
  - a) The use of another’s published work wholly or in part without proper recognition or documentation
  - b) The use of another student’s work as one’s own
  - c) The purchase, use, or provision of an already prepared paper
4. Obtaining or attempting to obtain copies of un-circulated examinations or examination questions.
5. Falsifying any academic record.
6. Using Artificial Intelligence (AI) to conduct any of the above referenced activities (see below for more).

**Statement Regarding the Use of Artificial Intelligence (AI) Technology:**

Absent a clear statement from a course instructor, use of or consultation with generative AI shall be treated analogously to assistance from another person (collusion). Generative AI is a subset of AI that utilizes machine learning models to create new, original content, such as images, text, or music, based on patterns and structures learned from existing data (Cornell, Center for Teaching Innovation). Unauthorized use of generative AI tools to complete an assignment or exam is not permitted. Students should acknowledge the use of generative AI and default to disclosing such assistance when in doubt. Individual course instructors

may set their own policies regulating the use of generative AI tools in their courses, including allowing or disallowing some or all uses of such tools. Students who are unsure of policies regarding generative AI tools are encouraged to ask their instructors for clarification. **(Adapted from the Stanford University Office of Community Standards-- accessed August 31, 2023)**

### **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 for Bb lectures:\***

***(Note: \* instructor reserves the right to make adjustments to this timeline and/or topics at any point in the semester):***

#### **Unit 1 Chapters 1 – 3**

**\*\*\*\*\*Jan. 15: MLK Holiday-No classes\*\*\*\*\***

Week 1 (Chapter 1) Biology: the Science of Life (Jan. 16-20)

Week 2 (Chapter 2) The Chemical Basis of Life (Jan. 21-27)

Week 3 (Chapter 3) Organic Molecules of Life (Jan. 28-Feb. 3)

#### **Unit 2 Chapters 4, 5 & 8**

Week 4 (Chapter 4) Inside the Cell (Feb. 4-10)

**Exam 1: (Feb. 7, 8 or 9)-Chapters TBA**

Week 5 (Chapter 5) The Dynamic Cell (Feb. 11-17)

Week 6 (Chapter 8) Cellular Reproduction (Feb. 18-24)

**Exam 2: (Feb. 28, 29 or Mar 1)-Chapters TBA**

#### **Unit 3 Chapters 6, 7 & 9**

Week 7 (Chap. 6) Energy for Life (Feb. 25-Mar. 2)

Week 8 (Chapter 7) Energy for Cells (Mar. 3-9)

**\*\*\*\*\*Mar. 11-15: Spring Break-No on-campus classes\*\*\*\*\***

Week 9 (Chapter 9) Meiosis (Mar. 17-23)

**Exam 3: Mar. 27, 28 or 29)-Chapters TBA**

#### **Unit 4 Chapters 10 – 12**

Week 10 (Chapter 10) Patterns of Inheritance (Mar. 24-30)



Week 11 (Chapter 11) DNA & RNA (Mar. 31-Apr. 6)

**Exam 4: 4/10-4/12-Chapters TBA**

Week 12 (Chapter 12) Biotechnology & Genomics (Apr. 7-13)

**Unit 5 Chapters 11 – 13 or TBA**

Week 13 (Chapter 13) Mutations and Genetic Testing (Apr. 14-20)

Week 14 (Chapter 14) Darwin & Evolution (Apr. 21-27)

Week 15 (Chapters 15-16) -Evolution on a Small & Large Scale (Apr. 28-May 4)

**Class Report Due Sunday, Apr. 28th @ midnite (worth 100 pts)**

**Lab Portfolio due Sunday, Apr. 28<sup>th</sup> @ midnite**

**All Connect exercises due, May 3<sup>rd</sup> @ midnite**

**Week 16 Final Open Book Exam, Monday, May 6 to Wednesday, May 8 (by 5pm).-Chapters TBA**

**Evaluation/Grading Policy (~1100 pts):**

**100 points –Connect Online Assignments (3500 pts)**

**500 points – 4 Regular Lecture Exams**

**100 points – Required Class Report**

**300 points – eScience Lab Average**

**200 points –Final Open Book Exam**

**Grade Assignment: (~pts)**

**A = 90-100% (~990-1100)**

**B = 80-89% (~880-979)**

**C = 70-79% (~770-869)**

**D = 60-69% (~680-759)**

**F = 0-59% (~0-649)**

**Lecture: 23% (Connect & class report)**

**Lab: 27% (eScience)**

**Exams: 50% (4 regular exams, 1 final)**

*\*Final Grade will be rounded up if you took a major part in completing all assignments on time, took all exams on time, responded to emails, etc.*

### **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.

### **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](http://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](mailto:eagleassist@ntcc.edu) \*Dual credit students please email [jstewart@ntcc.edu](mailto:jstewart@ntcc.edu) if interested

**Check Blackboard posting and I suggest printing out all class materials, including the syllabus.**

<b>Week # Sun-Sat</b>	<b>Lecture Topic-Pp notes, and text Chapters with Connect Assignments</b>	<b>Lab Online (Kit) <u>due on Sundays at 11:59pm.</u></b>
<b>Monday, Jan. 15</b>	<b>*****MLK Holiday*****</b>	Study!
<b>Week 1 Jan. 16-20</b>	Chapter 1: The Science of Life Powerpoint Connect Assignments	Lab 0: Getting started
<b>Week 2 Jan. 21-27</b>	<b>Syllabus Policy Due: Jan. 21</b> Chapter 2: Chemical Basis of Life Powerpoint Connect Assignments	Lab 1: Intro to Science & Lab 2: Lab Safety <b>Safety contract due: Jan. 27</b>
<b>Week 3 Jan. 28-Feb. 3</b>	Chapter 3: Organic Molecules of Life Powerpoint Connect Assignments	Lab 3: Chemical Bonding
<b>Week 4 Feb. 4-10</b>	Chapter 4: Inside the Cell Powerpoint Connect Assignments <b>Exam 1: 2/7-2/9-Chapters TBA</b>	Lab 5: Chemistry of Life
<b>Week 5 Feb. 11-17</b>	Chapter 5: The Dynamic Cell Powerpoint Connect Assignments	Lab 4: Microscope & Lab 10: Cell Structure
<b>Week 6 Feb. 18-24</b>	Chapter 6: Energy for Life Powerpoint Connect Assignments	Lab 6: Diffusion & Lab 7: Osmosis
<b>Week 7 Feb. 25-Mar. 2</b>	Chapter 7: Energy for Cells Powerpoint Connect Assignment <b>Exam 2: 2/27-2/29-Chapters TBA</b>	Lab 8: Enzymes
<b>Week 8 Mar. 3-9</b>	Chapter 8: Cellular Respiration Powerpoint Connect Assignments	Lab 20: Photosynthesis
<b>Mar. 11-15</b>	<b>*****SPRING BREAK*****</b>	<b>Study!</b>
<b>Week 9 Mar. 17-23</b>	Chapter 9: Meiosis Powerpoint Connect Assignments	Lab 9: Cellular Respiration
<b>Week 10 Mar. 24-30</b>	Chapter 10: Patterns of Inheritance Powerpoint Connect Assignments <b>Exam 3: 3/27-3/29-Chapters TBA</b>	Lab 11: Mitosis
<b>Week 11 Mar. 31-Apr. 6</b>	Chapter 11: DNA & RNA Powerpoint Connect Assignments	Lab 12: Meiosis
<b>Week 12 Apr. 7-13</b>	Chapter 12: Biotechnology & Genomics Powerpoint Connect Assignments <b>Exam 4: 4/10-4/12-Chapters TBA</b>	Lab 14: Mendelian Genetics
<b>Week 13 Apr. 14-20</b>	Chapter 13: Mutations and Genetic Testing; Powerpoint Connect Assignments	Lab 13: DNA & RNA



<b>Week 14</b> <b>Apr. 21-27</b>	Chapter 14: Darwin & Evolution Powerpoint Connect Assignments	Lab 15: Population Genetics
<b>Week 15</b> <b>Apr. 28-May 4</b>	Chapters 15/16: Evolution on a Small & Large Scale; Powerpoint  Class Report due:4/28@ midnite All Connect Assignments due on 5/3 by midnite	TBA
<b>Week 16</b> <b>May 6-8</b> <b>(Finals week)</b>	<b>*****OPEN BOOK FINAL EXAM*****</b> <b>(Chapters TBA, you must take exam either day on Monday, Tues, or Wed, May 6-8 [by 5pm on 8th])-no makeups!</b>	

**DISCLAIMER NOTE:** The instructor reserves the right to alter this syllabus as necessary with full disclosure & prior notice to the student.

\*Various module assignments on specific dates beyond exams will be given throughout the semester and posted online on Bb.

\*\*Major exam dates are tentative and subject to change, if necessary.

\*\*\*Modifications of the above schedule may be made and the material covered on any exam, including dates for major examinations.