



BIO 111 Concepts of Biology

Alicia Andes

UNITED TRIBES TECHNICAL COLLEGE

COURSE INFORMATION

Introduction to a wide range of biological topics, from the organism, ecology, and evolution to the cell, molecular biology, and genetics. This course is intended for non-Science majors.

Instructional Level: Associate Degree

Credits: 3

Total Hours: 45

Pre/Corequisites:

- Corequisite: LAB 111

CLASS INFORMATION

Section Number:

Term: Fall Year: 2022 Start Date: 8/23/2022 End Date: 12/9/2022

Meeting Times: Monday & Wednesday 9:00 am to 10:30 am

Delivery Mode: Face to Face

INSTRUCTOR

Alicia Andes

Email: aandes@uttc.edu

Office Phone: 701-221-1323

Office Location: SCITC 029

Office Hours:

MWF from 10:30 am to 1 pm; Monday from 3 pm to 5 pm

TEXTBOOKS

Simon, E. S, Dickey, J. L., & Hogan, K. A. (2016). *Campbell Essential Biology*. (7th ed.). London, England: Pearson.

INSTITUTIONAL LEARNER OUTCOMES

Critical Thinking: Employ critical thinking skills in the processes used to identify and solve problems.

Quantitative & Scientific Reasoning: Develop solutions to mathematical and scientific problems.

COURSE OBJECTIVES

1. Understand how science informs cultural perspectives.
2. Understanding the relationship among levels of biological information.

3. Understanding the unity and diversity of life forms.
4. Comprehend methods of inquiry and technology and the applications for society.
5. Integrate knowledge and ideas in science.
6. Understanding and utilizing scientific knowledge.

GRADING INFORMATION

Your final grade will be determined based on your points earned on the following:

Coursework	Points Possible
Exam 1 (Chapters 1-3)	100
Exam 2 (Chapters 4-7)	100
Exam 3 (Chapters 8-10)	100
Exam 4 (Chapters 13-14)	50
Final Exam (Chapters 15-19)	100
Chapter Reading Questions	320 - 640
In-Class Activities & Questions	100-200
Cultural Connection Papers	150
Total	1,020 - 1,440

This is a general plan for the course and additional assignments/points may be added or removed as time permits. Any changes will be announced in class, by email and on the class website.

Grading for BIO 111 is based on a points method. Exams, reading quizzes, papers, and class activities are given a stated point value. At the end of the semester, the total of points earned by a student is divided by the total points possible to come up with a final grade percentage. The 10-point scale is used to determine a letter grade for the course.

A. GRADING SCALE

Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Exams: There are 5 exams scheduled throughout the semester. Exams will not be cumulative, but those succeeding the first (Exams 2-5) may test your ability to synthesize old (tested previously) and new concepts. Exams will include multiple

choice, matching, true/false, ordering, short answer and essay questions. They will test your basic understanding of biological concepts and critical thinking skills. You will have an hour during class to complete the exam. Check your schedule for the dates of the exams.

Makeup Exams: Students may not make up a missed test, exam or quiz without a valid reason for their absence (illness, family emergency). It is the student's responsibility to contact their instructors before the absence, or within 24 hours after missing the formal assessment. Makeup exams must be scheduled within two (2) business days of the original test date unless there is a valid reason with proof for extending this deadline. Makeup exams will be different and more difficult than the original test.

Readings: Each week there is/are assigned readings of textbook chapters that correspond to the lectures. Assigned reading must be completed before the corresponding lecture. Homework will be based on the assigned weekly readings.

Reading Homework: Online reading homework will be given throughout the semester, one per chapter, due by 9 am at the start of class. The purpose of these homework is to ensure you are reading the chapters before lecture. Each homework assignment is worth 20-40 points. The online homework questions will be based on the assigned required reading for the week and are open book. Questions will include multiple choice, matching, true/false, ordering and short answer. There is a no time limit for each homework. Students can access and submit the homework on the course webpage on [My.UTTC](#).

In Class Activities & Questions: At the end of each topic lecture you will be required to complete an in-class group activity or answer questions based on the presented information in the textbook and in class. These activities or questions will determine how well you understand the information. All of the questions will be short answer and/or essay. Each activity or set of questions will be worth 10-15 points and are due either by the end of the class period (10:30 am) or the beginning of the next class period (9 am).

Cultural Connection: You will be assigned to write 3 papers that connect the topics we cover in class to aspects of your culture and community. These papers will be a minimum of 1 page double-spaced. The topics include the molecules of life, genetics, and biodiversity. Your papers should describe how these topics are relevant to your culture and community. You should provide at least 3 examples connecting each topic to an aspect of your culture or community. Examples can include anything from health, art and music, spirituality, history, plants, animals, the environment, etc. I want you to be as creative as possible. Each paper is worth 50 and will be graded based on the minimum of 3 examples, your understanding of the topics and connections, page length, grammar and spelling.

B. COMMUNICATION

Email is the official means of communication at UTTC. Information Technology (IT) will assign all students an official UTTC email address. All correspondence from the College to the student will be sent to the student's UTTC email address. Students are expected to check their email regularly and are responsible for all information sent to them via their UTTC email address. Faculty expect students to use their official email address for all instructional purposes, including communicating with the faculty.

C. ATTENDANCE

Students at UTTC are expected to participate in all of their class sessions and are expected to communicate with their instructors regarding any emergencies that cause them to miss class. Regardless of the circumstances, the student is responsible for obtaining any information missed because of the absence and completing any outstanding assignments.

The student may refer to the course assignments in My.UJTC.edu, contact another student enrolled in the course, or meet with the course instructor during office hours to get the missing information. Attendance is entered as “Present”, “Absent-Unexcused”, or “Excused” (college-sanctioned absences).

SUMMIT PARTICIPATION

All UTTC students attend the United Tribes Technical College Tribal Leaders Summit in September 6 - 8, 2022 at the Bismarck Event Center. Students are expected to be at the Summit Tuesday - Thursday. Transportation to and from the campus will be provided. Sign-in sheets will be available at the registration tables for all students to sign upon arrival and again at departure. At the conclusion of the Tribal Leaders Summit, the student is expected to write an essay on how the session presentation connected to the UTTC Events Week theme. Include the title of the sessions attended, the names of the presenters, a brief description of the content presented in each session, the presenter style, and how the sessions connected to the theme. Visiting the exhibit hall can be included as a session. The essay is considered an assignment for each one of the students' courses and is recorded as either points or a letter grade. One reflection paper can be submitted for multiple courses.

D. LATE ASSIGNMENT SUBMISSIONS

UTTC supports and fosters the student's responsibility for completing and submitting assignments on or before scheduled due dates and times. If an assignment is due, the student should make every effort to submit the assignment on time. Occasionally, a student may experience an unexpected life event that results in the submission of late work. Communication is the key. Instructors are more than willing to work with students in the event of an emergency if the student communicates with them before the date and time the assignment is due to make other arrangements.

Late assignment deadlines will vary among departments but will not exceed more than five (5) business days after which the assignment was initially due. Assignment due dates, late assignment deadlines, and late assignment penalties are outlined in course syllabi. Assignments not submitted by the initial deadline date will be reflected in the course gradebook as a zero (0) until the assignment has been submitted. The amount of points deducted for late work is at the discretion of the instructor. Assignments submitted via E-mail will not be accepted under any circumstances and will receive a grade of zero.

I do allow late assignments. However, I deduct one point for each day that an assignment is late. For example, if you turn in an assignment 5 days late, I will deduct 5 points from your final grade.

E. MISSED TEST, EXAMS AND QUIZZES (FORMAL ASSESSMENTS)

Students may not make up a missed test, exam or quiz without a valid reason for their absence (illness, family emergency). It is the student's responsibility to contact their instructors before the absence, or within 24 hours after missing the formal assessment. The instructor will review the reason the student missed and determine if the circumstance justifies the student being allowed to take the formal assessment. Approved make-up assessments must be taken outside of the student's regular class schedule and during a time and location agreed upon between the student and instructor. Students are not to miss another class in order to make-up an assessment for another course. If the student fails to show on the date and time of the makeup assessment, the student will not be permitted to reschedule the makeup and the assessment and will earn a 0% grade.

F. EARLY ALERT SYSTEM

UTTC's Early Alert System (EAS) is a proactive, communication driven support system that provides timely identification and interventions to work with individual students to assist in generating plans to overcome challenges to college success. The system assists UTTC students by linking them to faculty and staff who can provide and connect students to available resources and strategies. The early alert serves as an opportunity for students to take ownership of their success and empower them to accomplish academic and personal goals. The system helps faculty and academic advisors connect and communicate with students as issues arise. The additional cross-wide partnerships create a culture of collaboration focused upon the best interest of UTTC students.

Academic related concerns such as attendance, missing assignments, or classroom behavior will result in an early alert being issued by faculty. When an early alert is issued, the student will receive an email requesting them to make arrangement to follow up with the instructor and/or their academic advisor. Students receiving an early alert should make the necessary arrangements to set up and meet with faculty as soon as possible to generate a plan of success.

G. ACADEMIC HONESTY

Students are expected to complete their own work. Academic dishonesty includes plagiarism; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using course materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to dishonestly obtain grades, honors, awards, or professional endorsement; altering, forging, misrepresenting, or misusing an academic record; or fabricating or falsifying data, research procedures, or data analysis. Refer to [Academic Affairs policies](#) and procedures handbook for further information.

H. STUDENTS WITH DISABILITIES

United Tribes Technical College recognizes its responsibility for making reasonable accommodations to ensure there is no discrimination on the basis of a disability. The Disabilities Services Office coordinates reasonable accommodations, support services, and appropriate referrals for the purpose of removing barriers and providing an equitable learning environment. If you have a disability, please contact the [Disabilities Services \(DS\)](#) office at (701) 221-1516 or email at dss@uttc.edu.

I. TITLE IX STATEMENT

Title IX is a federal civil rights law that prohibits discrimination on the basis of sex, including sexual harassment, rape and sexual assault. United Tribes Technical College is committed to upholding the law and standards that promote respect and human dignity in a safe environment. Sexual misconduct and relationship violence in any form violates UTTC's mission, cultural values, Student Code of Conduct, and may also violate federal and state law. If you or someone you know has been impacted by sexual assault, dating and domestic violence, stalking, or sexual exploitation, UTTC has resources available on the [Title IX website](#). you can find the appropriate resources on the UTTC campus and in the community

J. DIVERSITY AND EQUITY STATEMENT

United Tribes Technical College values diversity because it enriches the community and wealth of experiences that characterize a post-secondary education. Our students, faculty, and staff come from Tribal lands throughout the United

States and Canada. The majority of our students come from the northern plains region of the country, with 70% representing the North Dakota tribes.

UTTC recognizes that diversity is about much more than race, ethnicity or geography. Because students from many Tribal nations are represented at UTTC, from a wide range of cultural and ethnic backgrounds, students are encouraged to share their own cultural practices, traditions, and beliefs in the classroom in an effort to build an inclusive and welcoming community for all individuals and one from which we can learn from one another. We believe engagement with diverse perspectives and ideas is critical to the education and growth of all people, and we value the unique experiences and viewpoints of all of our community members.

EQUITY STATEMENT

United Tribes Technical College (UTTC) believes that access to a high-quality education in an inclusive environment is the right of all individuals and imperative for the continued advancement of a strong democracy and workforce. Equity is ensuring that all students receive what they need to be successful through the intentional design of the college experience.

K. TECHNOLOGY REQUIREMENTS

To ensure that you are using the recommended personal computer configurations, please refer to the [minimal technology requirements](#).

FACE-TO-FACE

PARTICIPATION / CLASS ENGAGEMENT

UTTC prepares students for the workforce by having high expectations for skills demonstrated in the classroom that transfer into future employment. This includes students' ability to be on time for class, to refrain from external distractions (such as cell phone usage or holding side conversations with other students), by providing positive contributions to class discussions, participating in individual or group activities, and being prepared for class.

CELL PHONES and LAPTOPS

Cell phones are turned off during class times out of respect for the other students and the instructor. If a student is expecting an important phone call (e.g. case worker, Housing, clinic), the instructor must be informed ahead of time and the cell phone set to a silent ring. If the call is received during class time, the student will answer the call and quietly step out of the classroom. Students may not use class time to check social media accounts, voicemail, text messages and/or personal emails.

STUDENT BEHAVIOR

UTTC students will conduct themselves in a responsible and respectful manner at all times in the classroom, in the hallways, in the Library, the Cafeteria, and any other location on campus. Student behavior that interferes with learning in the classroom will not be tolerated. This behavior includes chronic tardiness, threatening confrontations, intoxication, inappropriate physical contact, lewd or disrespectful language or gestures directed at the instructor or at fellow students, bullying, direct or indirect intimidation, and conversations with other students that are not related to classroom topics. Faculty are expected to maintain professional management of classroom activities prior to, during and after class times. As such, if a student demonstrates behavior that disrupts or interferes with classroom activities, an instructor reserves the right to ask the student to leave the classroom, to contact campus security, to request mediation

by the academic department chair or an academic/personal counselor, or to file a formal complaint subject to a student disciplinary hearing.

BASIC NEEDS

Any student who faces challenges such as having enough food to eat or adequate housing and believes this may affect their attendance or performance in their courses is urged to contact the Wellness counselors for support. You can also notify your instructor for this course if you are comfortable doing so. Your instructor may be aware of additional resources that are available for you.

COURSE CALENDAR

The syllabus and schedule are a general plan for the course and deviations by the instructor may be necessary. Any changes to the schedule will be announced in class, as an announcement on the class website and by email. Therefore, you will be expected to both attend class and check your email!

Module/Week	TOPICS COVERED	Support Materials, Book chapters, etc.	Assessment (Formative – Summative)
1 Aug 23 - 26	Syllabus & Course Expectations Chapter 1 – Scientific Method & Life		
2 Aug 29 – Sept 2	Chapter 1 – Scientific Method & Life Chapter 2 - Chemistry	Ch. 1-2	Ch. 1 Activity Ch. 2 Online Questions
3 Sept 5 - 9	*No School 9/5 or 9/9 Labor Day & Powwow No Class		Tribal Summit Assignment
4 Sept 12 -16	*No School 9/12 Founders Day Chapter 2 – Chemistry Chapter 3 – Molecules of Life	Ch. 3	Ch. 2 Atom Diagrams Ch. 3 Online Questions
5 Sept 19 - 23	Chapter 3 – Molecules of Life Exam Review – Chapters 1-3		Molecules of Life Table Nutritional Labels
6 Sept 26 - 30	Exam 1 – Chapters 1-3 Chapter 4 – Cell Structure and Function	Ch. 4	Cultural Connection Essay 1 Ch. 4 Online Questions Ch. 4 Venn Diagram Ch. 4 Cell Table
7 Oct 3 - 7	Chapter 5 – The Working Cell Chapter 6 – Cellular Respiration Chapter 7 - Photosynthesis	Ch.5-7	Ch. 5 Online Questions Ch. 6 Online Questions Ch. 7 Online Questions CR & PS Diagram
8 Oct 10 - 14	*No School 10/10 Indigenous Day Midterm Grades Due 10/14 Exam 2 – Chapters 4-7 Chapter 10 – DNA Structure & Function	Ch.10	
9	Chapter 10 – DNA/Protein Synthesis	Ch. 10	Ch. 10 Online Questions

Oct 17 - 21	Chapter 8 – Mitosis/Meiosis	Ch. 8	Ch. 8 Online Questions Protein Synthesis Steps
10 Oct 24 - 28	Chapter 8 – Mitosis/Meiosis Chapter 9 - Genetics	Ch. 9	Cellular Division Diagrams Ch. 9 Online Questions
11 Oct 31 – Nov 4	Chapter 9 – Genetics Exam 3 – Chapters 8-10		Genetics Worksheet
12 Nov 7 - 11	*No School 11/11 Veterans	Ch. 13-14	Cultural Connection Essay 2 Ch. 13 Online Questions Ch. 14 Online Questions
	Chapter 13 – Evolution Chapter 14 – Evolution of Biodiversity		
13 Nov 14 - 18	Review Chapters 13-14 Exam 4 – Chapters 13-14		Ch. 14 Online Questions Evolution Activity
14 Nov 21 - 25	*No Afternoon Classes 11/23	Ch. 15-16	Ch. 15 Online Questions Ch. 16 Online Questions
	*No School 11/24, 11/25 Thanksgiving		
	Chapter 15 – Microbial Life Chapter 16 – Plant & Fungi		
15 Nov 28 – Dec 1	Chapter 17 – Animals Chapter 18 – Intro to Ecology	Ch. 17-18	Ch. 17 Online Questions Ch. 18 Online Questions
16 Dec 5 - 9	Chapter 19 - Population Ecology Final Exam Friday December 9th	Ch. 19	Cultural Connection Essay 3 Ch. 19 Online Questions
GRADES DUE	Grades DUE December 12th		