



# LAB 111 Concepts of Biology Lab

Alicia Andes

UNITED TRIBES TECHNICAL COLLEGE

## COURSE INFORMATION

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One two-hour lab session per week. Labs completed will follow topics covered in the lecture portion of the class.

Credits: 1

Pre/Corequisites:

- Corequisite: BIO 111

## CLASS INFORMATION

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Section Number: N/A

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

Meeting Times: Friday from 9:00 am to 10:50 am

Delivery Mode: Face to Face

## INSTRUCTOR

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Alicia Andes

Email: [aandes@uttc.edu](mailto:aandes@uttc.edu)

Office Phone: 701-221-1323

Office Location: SCITC 222

Office Hours:

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

## TEXTBOOKS

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**Face-to-Face Course:** Murray P. Pendarvis, John L. Crawley. (2018). *Exploring Biology in the Laboratory*. Morton Publishing Company. ISBN13: 9781617317552. Loose-leaf

**Online Course:** Hayden, MacNeil (n.d.) *Virtual Lab Card*. MPS

## INSTITUTIONAL LEARNER OUTCOMES

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Communication: Exhibit effective oral and written communication.

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

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1. Basic science literacy, including superficial coverage of cell biology, ecology, human anatomy and physiology, evolution, genetics, and environmental biology.
2. Understanding how science informs cultural perspectives.
3. Understanding the relationship among levels of biological information.
4. Understanding the unity and diversity of life forms.
5. Comprehending methods of inquiry and technology and the applications for society.
6. Integrating knowledge and ideas in science.
7. Understanding and utilizing scientific knowledge.

## GRADING INFORMATION

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

Coursework	Points Possible
Reading Homework Questions	110 - 220 (points vary by assignment)
Lab Participation	120
Lab Reports	240 - 720
<b>Total</b>	<b>470 - 1,060</b>

This is a general plan for the course and additional 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 LAB 111 is based on a points method. Reading homework, lab participation and lab reports are given a stated point value. At the end of the semester, the total points earned by a student is divided by the total points possible to calculate 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%

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

**Reading Homework Questions:** Each week an online reading homework will be due by the beginning of lab on Friday at 9 am. The purpose of these homework assignments is to ensure that you are prepared for the week's class by reading the introduction for the scheduled lab. The reading homework are open book and will test information from the introductions that are assigned for the week's scheduled lab activities. Each homework assignment is worth 10-30 points. Questions may include multiple choice, matching, true/false, ordering and short answer. There is a no time limit for each quiz. Students can access and submit the homework on the course webpage on [My.U TTC](#).

**Lab Participation:** You are required to **ARRIVE ON TIME** and **PARTICIPATE** in each weekly lab! All labs are group activities. Each week you will earn 10 points for arriving on time and participating in class. Late arrivals disrupt the work and progress of your classmates. If you arrive 5-10 minutes after I have started class, 5 points will be deducted from your participation grade that week. If you arrive > 30 minutes late, you will not receive participation points for that week. If you arrive on time but do not wholly or partially participate in the lab, points will be deducted from your participation grade for the week.

**Lab Reports:** Each lab has a procedure to follow and questions to answer. Your lab report grades are based on your responses to the questions during and after the lab activity procedure in the textbook. The questions test your understanding of the experiments and the concepts being tested. Lab report points vary between 20-60 points. Lab report questions are short answer or essay. Depending on time, lab reports will be due at the end of the class on Friday (11 am on the same day) or the next week at the beginning of lab (9 am next Friday).

**Late Assignments:** You may turn in your lab reports late. However, I will deduct 1 point for each day your assignment is late. It may also take longer for me to grade and return late assignments.

**Missed Labs:** You cannot make-up missed participation or lab reports for any excuse. Since emergencies and extenuating circumstances do occur and some of you may miss labs, **I will drop the lowest participation and lab report grade for each student.** Therefore if you miss one lab, then those missed points will not count against your final grade. However, missing more than one lab will influence your final grade. I strongly suggest that you try to attend every lab during the semester.

## **B. COMMUNICATION**

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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**

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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.U TTC.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**

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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.

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

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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**

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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**

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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**

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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](mailto:dss@uttc.edu).

## **I. TITLE IX STATEMENT**

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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**

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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**

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

## **FACE-TO-FACE**

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### **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	NO LAB		
2 Aug 29 – Sept 2	Syllabus, Lab Safety, Equipment & Scientific Method		Chapter 1 Questions
3 Sept 5 - 9	*No School 9/5 or 9/9 Labor Day & Powwow NO LAB		
4 Sept 12 -16	*No School 9/12 Founders Day Acids, Bases and pH	Chapter 3.1-3.2 Online Questions	Chapter 3.1-3.2 Questions
5 Sept 19 - 23	Biological Molecules	Chapter 3.3-3.5 Online Questions	Chapter 3.3-3.5 Questions
6 Sept 26 - 30	Microscopes	Chapter 4.1-4.4 Online Questions	Chapter 4.1-4.4 Questions
7 Oct 3 - 7	Cell Structure	Chapter 4.5-4.8 Online Questions	Chapter 4.5-4.8 Questions
8 Oct 10 - 14	*No School 10/10 Indigenous Day Midterm Grades Due 10/14 Diffusion & Osmosis	Chapter 5.3-5.4 Online Questions	Chapter 5.3-5.4 Questions
9 Oct 17 - 21	Enzymes	Chapter 5.1 Online Questions	Chapter 5.1 Questions
10 Oct 24 - 28	DNA & Cellular Division	Chapters 7.1 & 8.7 Online Questions	Chapters 7.1 & 8.7 Questions
11 Oct 31 – Nov 4	Genetics	Chapter 8.1-8.6 Online Questions	Chapter 8.1-8.6 Questions
12 Nov 7 - 11	*No School 11/11 Veterans NO LAB		
13 Nov 14 - 18	Evolution by Natural Selection	Handout Questions	Handout Questions
14 Nov 21 - 25	*No Afternoon Classes 11/23 *No School 11/24, 11/25 Thanksgiving NO LAB		
15	Protists	Chapter 12 Online Questions	Chapter 12 Questions

<b>Nov 28 – Dec 1</b>			
<b>16 Dec 5 - 9</b>	<b>NO LAB</b>		
<b>GRADES DUE</b>	Grades DUE December 12th		