

# Principles of Biology

## BIOL 120L

### GENERAL INFORMATION & SYLLABUS

**COURSE DESCRIPTION:** Biological principles common to plants and animals. Topics include scientific investigation, genetics, evolution and ecology. Not for credit toward Biology major or minor. Not open to those who successfully completed BIOL 110, BIOL 115 or BIOL 201. University Core 7, when combined with BIOL 120.

**TEXTBOOK REQUIRED:** Investigating Life Science Laboratory Manual, Sixth Edition

By: Healey, Ghent, Gasparich, Kosewicz, Scully & Trauth-Nare; Academx Publishing, only available in the campus bookstore

**INSTRUCTOR CONTACT INFORMATION:** Check the main menu of the Blackboard site for lab.

**NOTE – you will have a Blackboard site for BIOL120L (lab) and a separate site for BIOL120 (lecture).**

**LEARNING OUTCOMES:** At the end of the course, the student will be able to

- Compile organized, legible laboratory manual pages.
- Create and analyze graphical representations of data from conducted experiments.
- Demonstrate competence in discriminating between scientific and nonscientific information.
- Follow scientific protocols, such as one for extracting DNA from cheek cell samples.
- Safely use scientific laboratory equipment, such as electrophoresis equipment to separate fragments of DNA samples.
- Classify organisms by characteristics to show evolutionary relationships.
- Identify key concepts in biology and relate them to contemporary issues.
- Discuss ecological issues relevant to contemporary society such as deforestation and human population growth.

### STUDENT RESPONSIBILITIES

**Food and drinks are not permitted in lab for safety reasons.**

**This is a LABORATORY course and attendance will be recorded each week but does not earn you points. Attendance in lab is critical for success in this course.** You must complete the weekly lab activities as well as an independent research project.

**LABORATORY SAFETY:** This is a laboratory course. As such, there are safety requirements that must be followed by all students in the course. As a student in this course, you must abide by the following safety rules.

- Eating or drinking is not permitted in the lab room for safety reasons. All food and drinks must remain in your backpack or on the table outside the lab room.
- Proper lab attire is strongly recommended. Closed-toe shoes and pants will be required for some activities.
- Gloves and/or safety glasses must be worn for certain lab activities. Your instructor will tell you when to wear them.
- Cell phones should not be used during lab without the instructor's approval.
- The use of ear buds or headphones is not permitted at any time during the lab.

**ABSENCES:** In person participation is required in order to be successful in this course. All absences are **initially recorded as unexcused**. For absences to be reclassified as *excused*, it is the student's responsibility to: 1) notify the lab instructor **by email within 24 hours** of the absence **AND** 2) provide documentation for any absences to the lab instructor **within one week** of the absence. If these procedures aren't followed, the absence may be considered unexcused. You cannot earn points for assignments related to unexcused absences. Each absence will be considered for excused status on an individual basis by the lab instructor or in conjunction with the course coordinator.

- **It is the policy of the University to excuse the absences of students for the following reasons:**
  - illness or injury when the student is unable to attend class
  - religious observance where the nature of the observance prevents the student from attending class
  - participation in university activities at the request of university authorities (e.g., Intercollegiate Athletics, Forensics Team, Dance Company, etc.)
  - compelling verifiable circumstances beyond the control of the student
- **Missing one or two labs:** Two regular 10-point lab assignment scores are dropped before final grades are calculated. The lowest scores are dropped even if they are the result of excused absences. This allows for sickness, commuting issues, doctors' appointments and other life challenges. Make-up assignments will not be considered for the first two absences.
- **Missing three or more labs:** If you have three absences that are documented and reclassified as excused, you may be given an opportunity to complete one written 10-point make-up assignment. Your instructor will determine the due date and time of the assignment, and the late work policy will apply if necessary. **Since BIOL120L is a hands-on laboratory course, only one make up assignment will be accepted.** You cannot earn points for unexcused absences; a zero grade will be recorded. If you have many unexcused absences, see your instructor and your academic advisor as soon as possible.

**\*\*\*If you anticipate having to miss labs because of athletic commitments or for other foreseeable reasons, change to a section with times that better fit your schedule before the end of the add/drop period. Students that have protracted medical problems or anticipate other legitimate extended absences should discuss their individual situations with the instructor as these situations arise.\*\*\***

**LEAVING EARLY:** If you leave early, you may be considered absent or the number points that you can earn may be reduced (as determined by your instructor). You are expected to remain in lab for the entire period.

**LATENESS** is not acceptable. Arrive on time. Lab begins right away and lasts the entire session. **Two points will be deducted if you are more than 10 minutes late.**

*In the case of documented lateness, again, it is the student's responsibility to provide any documentation for consideration, within the allotted timeframe, as described above for absences.* Late points will be returned upon receipt of documents by the lab instructor, if lateness is reclassified as excused. **If you arrive more than 30 minutes after the start of the lab session, you will not be permitted to participate, regardless of lateness status, as this is a safety issue.**

**LATE WORK:** All in lab activities are due at the end of the lab period and must be submitted before leaving the lab room. All pre-lab quizzes and assignments should be submitted in Blackboard and are due on the dates and times specified in the schedule. Any work that is turned in after the due date and time established by your instructor is considered late and will lose points at the rate of **2 points per calendar day, starting with the first day**. Due dates and times may be communicated in class, via Blackboard, via email, or in the course schedule. This policy applies to ALL assignments completed for this course, including: in lab activities, independent project assignments and make-up assignments.

**MATERIALS NEEDED FOR LAB:** You must bring the LAB manual to each lab session. 2 points will be deducted from lab assignments completed without a lab manual. Most labs will also require you to use your laptop, please bring your laptop to lab each week.

**CLASS BEHAVIOR:** Free discussion, inquiry, and expression is encouraged in this class. Classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of students to benefit from the instruction is not acceptable. Examples may include routinely entering class late or departing early; use of cellular phones or other electronic devices; repeatedly talking in class without being recognized; talking while others are speaking; or arguing in a way that is perceived as "crossing the civility line." **Cellular phones should not be used during lab without the instructor's approval.** Classroom behavior which is determined to be inappropriate and cannot be resolved by the student and the faculty member may be referred for administrative or disciplinary review and the student will be barred from attending class.

**PRE-LAB ASSIGNMENTS:** Some assignments will be completed individually, outside of class. These assignments are listed in the "Outside of Lab Activities" column on the schedule. All pre-lab assignments will be submitted on Blackboard. **Check the schedule for the specific due date for each assignment each week.**

- **Syllabus Quiz & Excel Homework** – must be completed by every student, cannot be dropped
- **Pre-Lab Quizzes** – Pre-Lab Quizzes will consist of one or more questions based on information in the Background section of the lab activity that will be completed that week in Lab. Read the Background section thoroughly before starting the quiz. Pre-Lab quizzes will be given on Blackboard. You will have two attempts for each quiz, and the highest score will be recorded. Pre-Lab quizzes will be timed. Make sure you have a secure internet connection before starting each quiz. You will not be allowed additional attempts if you lose your internet connection in the middle of the quiz. **Two Pre-Lab quizzes will be dropped before your final grade is calculated. There are no make-up Pre-Lab quizzes.**
- **Independent Project Assignments** – It is each student's responsibility to make sure that the correct document is submitted in the correct format on Blackboard prior to the deadline. All project related assignments must be submitted in the specified format - usually as a PDF file. Other types of formats are not acceptable. If you work in Google Docs, Pages, or any other program that does not save the file as a .pdf, then you must convert the file to the correct format prior to turning it in on Blackboard. **If an incorrect document, blank document, or document that is the wrong format is turned in, then you will lose 2 points on the assignment upon submission of the correct document (the late work policy may be applied). None of the assignments associated with the independent project will be dropped.**
- **In most cases, an excused absence from lab does not excuse you from the pre-lab assignment(s).** If you have a legitimate reason that you cannot complete a pre-lab assignment by the deadline, then you must email your instructor and provide the appropriate documentation **within 24 hours** of the deadline to have a request for an extension considered. If these procedures are not followed or the reason is not legitimate, then the assignment will be due at the original due date/time and the late work policy will apply.

**TECHNOLOGY REQUIREMENTS:** Students will need to be able to access their TU email and Blackboard regularly throughout the semester. Students will also be required to use Microsoft Excel to complete data analysis and graphing during the semester. Students can download Microsoft Excel for free from Towson University. Directions will be provided on Blackboard.

**EMAIL:** When you email your instructor please treat the email as a formal letter (ex: Dear Professor, Thank you, your full name). Do not treat emails like a text message. Please **include "BIOL 120L" and your section number** in the subject line of the email. Emails sent outside of normal business hours may not be answered until the following business day. If you wait until right before an assignment deadline to ask questions you may not receive an answer prior to the deadline.

**ACADEMIC HONESTY:** Any form of cheating (including plagiarism on laboratory assignments and reports) will not be tolerated. Students are encouraged to discuss lab assignments, but all answers should be written independently. **SafeAssign will be used to check for plagiarism on assignments uploaded in Blackboard.** Cheating and plagiarism are defined in the Student Academic Integrity Policy and should be reviewed by each student. The consequences of violating this policy may result in the assignment of zero points for an assignment or a failing grade for the course at the discretion of the instructor. <https://www.towson.edu/about/administration/policies/03-01-00-student-academic-integrity-policy.html>

**ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:** Towson University is committed to providing equal opportunity and access for students with disabilities by removing barriers to participation and providing reasonable accommodations. If you have an Accommodation Memo from Accessibility and Disability Services (ADS), it is important that you share it with me as soon as possible so we can discuss your accommodations as they relate to this course. If you are not registered with ADS and would like more information, please contact the office at 410-704-2638 or tuads@towson.edu or visit the website at <https://www.towson.edu/accessibility-disability-services/>.

**DIVERSITY STATEMENT:** Towson University values diversity and fosters a climate that is grounded in respect and inclusion, enriches the educational experience of students, supports positive classroom and workplace environments, promotes excellence, and cultivates the intellectual and personal growth of the entire university community. Should you feel that you are experiencing a negative environment related to diversity issues or cultural sensitivity, we encourage you to contact the Department's Assistant Chair, [Dr. Jack Shepard jshepard@towson.edu]. For more information go to <https://www.towson.edu/fcsm/departments/biology/diversity.html>

**COURSE REPEAT POLICY:** Students may not repeat a course more than once without prior permission of the Academic Standards Committee.

**GRADING:** TU uses +/- grading,  
See chart for letter grade ranges.

**Points Available:**

**Syllabus quiz** (5 points)

**Homework Assignment** (10 points)

**12 Pre-lab quizzes** (2 points each) - The two lowest scores will be dropped

**12 lab activities** (10 points each) - The two lowest scores will be dropped

**Independent project** (65 points total) – Proposal (15 points), Progress Checks (10 points), Final Report (40 points)

**Total Points Possible = 224 (200 after the low scores are dropped)**

	%		%
A	92- 100	C+	76 – 78.9
A-	89 – 91.9	C	70 – 75.9
B+	86 – 88.9	D+	66 – 69.9
B	82 – 85.9	D	60 – 65.9
B-	79 – 81.9	F	<60

**IMPORTANT NOTES:**

- *All lab grades are recorded in the Blackboard Grade Center, contact your instructor if you have questions*
- *The schedule and/or the total number of points for the course may change (ex: closings due to inclement weather)*

**TIPS FOR SUCCESS:**

- attend every lab
- arrive on time and don't leave early
- bring your lab manual and your laptop every week
- answer all parts of each analysis question
- use evidence (data/numbers) to support your answers
- ask for help (in lab or by email)
- check your email and BlackBoard regularly