

BI 102: GENERAL BIOLOGY (CRN 15194) – Summer, 2021

INSTRUCTOR: Andrea Waite, Ph.D.
PHONE: *E-mail is the best way to contact me*
E-MAIL: waitea@linnbenton.edu

CLASS FORMAT: Online, On-demand
OFFICE HOURS: Tues 2-3:20PM (drop-in)
 Thurs 2-2:20PM (by appt.)

Grading:

9 Labs @ 10 pts each	= 90 points
Biotechnology Forum Discussion @ 10 pts	= 10 points
10 online homework assignments @ 5 pts each	= 50 points
4 lecture assignments @ 5 pts each	= 20 points
3 exams @ 80 points each	= 240 points
Comprehensive final exam	= 100 points
Total	= 510 points

Course Final Grades:

A = 90 - 100%
B = 80 - 89%
C = 70 - 79%
D = 60 - 69%
F = 59% or below

Introduction:

General Biology 102 is a course designed to help the learner discover the workings of the scientific process from a biological perspective. This course is designed for students at Linn-Benton Community College who are *non-science majors*. Students typically have little to no science background, yet are enrolled in this course to fulfill requirements needed for a degree and who desire to expand their knowledge and appreciation of the biological sciences. This course will fulfill your laboratory science distribution requirements at LBCC. This course focuses on processes of biology including understanding the importance of DNA, synthesis of other biological molecules, cell division, genetics, adaptation and evolution. Along with acquiring working knowledge of biological systems, a major goal of this course is for students to complete the course with an appreciation for, and enjoyment of, the day-to-day integration of biology into all aspects of their lives.

Course Learning Outcomes:

- Distinguish between the groups of biomolecules
- Be able describe selected key cell processes
- Be able to describe the patterns of inheritance
- Express how changes in the genome can affect the phenotype or traits within a population
- Explain how natural selection drives evolution

Recommended Prerequisite: MTH 060

BI102 is taught as a discrete and separate course in biology. It is not necessary to have any other biology courses (BI101 or BI103) before taking this course.

Materials:

- OpenStax Concepts of Biology: To be accessed or downloaded from <https://openstax.org/details/concepts-biology> – **Required**
- Access to the Moodle online learning management system - **Required**

Minimum equipment recommendations:

- A wifi hotspot
- A computer with 128g SSD, 4G RAM, i3 6th gen processor (or equivalent functionality)
- Device with a microphone and speaker
- Device with a camera
- Students can consult [this link](#) if they are looking for a product recommendation

Course Format:

This course is a 5-week condensed version of what is normally a 10-week course. It is being offered entirely online. There are no set lecture or lab times that you must attend. All materials are available to you through Moodle. Lecture materials are available on-demand, but labs, homework assignments, lecture activities, and exams must be completed within given dates. I am available live on Zoom during office hours, and always welcome you to stop by. I also can meet with students via Zoom by appointment.

Labs:

This class is a lab class. Although the labs will be done virtually, the lab is a required part of this course. **In order to receive a grade of D or better in this class, you must complete the activities from 6 of the 10 labs.** For each lab, there is a video posted detailing which activities you will need to complete, and how. You can then complete the activities, complete the prelab and lab report, and upload it to Moodle. The labs will be available in both Word and PDF format. You may edit them inline, or print them and upload a scan or photo of them. **Labs are due Sunday at 11:59PM. No late labs will be accepted.** Your lowest lab score will be dropped from your final grade.

Lecture Assignments:

Throughout the term, there will be four activities that will be assigned and explained in the lecture videos. They will be due in weeks 1, 2, 3, and 4. Once you have completed these activities, you can upload them to Moodle. Additionally, in week 4 you will be required to participate in a biotechnology forum discussion on Moodle. Instructions and requirements for this will be given in the biotechnology lecture.

Online Homework:

This class has an online homework component. Before the end of the first week of class, you will need to access the course Moodle site and complete the homework assignment(s). While there is no limit on the amount of time you can spend on these assignments, the due dates are rigid. **Homework assignments are due Sunday at 11:59PM. The assignments close at that time, and all open assignments will be automatically submitted. No late assignments will be accepted.** Your lowest homework score will be dropped from your final grade. All material on the homework is covered in your book, and the vast majority will be covered in class. You may be required to look up information. Give yourself enough time to complete these assignments so that you can get all the points each week! Once the due date for these assignments has passed, the questions will be available to you for practice. Take advantage of this to review for exams (especially the comprehensive final).

Missed and late work:

Given the flexibility in the online format, no late work will be accepted for homework, labs, forum posts, or lecture assignments. Exam makeups will only be considered under very limited circumstances, with documentation and at the instructor's discretion.

Extra Credit:

There will be limited opportunities for extra credit in this class. Extra credit will be available in the following ways:

- Some exams may have extra credit points worked into them.
- Visit the Academic Coaching website and make an appointment. If you successfully complete one of their online classes (and I receive verification from them that you have completed it), I will give you 3 points of extra credit. You may do this up to 2 times before the final exam. You can check them out [here](#).

Academic Misconduct:

Academic misconduct includes any form of cheating or plagiarism. The student is encouraged to read the college catalog for further details. If a student is found to have cheated on an exam, after due process the resulting grade may be a zero on the exam. **Please note that plagiarism includes copying a definition from Google or the textbook.** Repeat violations of this policy will be referred to the Dean of Science, Engineering and Technology Division. Violations of academic honesty will be met with severe measures that may include failing the assessment, the course, or expulsion from the college. Academic misconduct includes (but is not limited to) using ANY electronic device during exams, or to answer lab questions without completing the associated activities.

Incomplete Policy:

An incomplete (IN) will only be issued when a student has completed all course material but is unable to complete the final exam by the specified date. An incomplete grade will be accompanied by a signed contract specifying the conditions necessary to complete the course.

Withdrawing from Classes (Dropping a Class After the Refund Deadline):

To drop a class or withdraw from school, you may do so using the Webrunner system. If you withdraw from a course after the refund deadline, you will receive a "W" grade in the class, you will forfeit all claims to refunds, and you will be financially responsible for any tuition and fees.

COLLEGE POLICIES

LBCC EMAIL AND COURSE COMMUNICATIONS

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email and your Moodle account through Moodle.

DISABILITY AND ACCESS STATEMENT

Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](#) for steps on how to apply for services or call 541-917-4789.

STATEMENT OF INCLUSION

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

TITLE IX REPORTING POLICY

If you or another student are the victim of any form of sexual misconduct (including dating/domestic violence, stalking, sexual harassment), or any form of gender discrimination, LBCC can assist you. You can [report](#) a violation of our sexual misconduct policy directly to our Title IX Coordinator. You may also report the issue to a faculty member, who is required to notify the Coordinator, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

CHANGES TO THE SYLLABUS

I reserve the right to change the contents of this syllabus due to unforeseen circumstances. You will be given notice of relevant changes by announcement on Moodle.

BI 102, Tentative Schedule, Summer 2020 (Subject to change)

Week	Dates	Topic	Recommended Textbook Reading
1	Mon - Sun 8/2 - 8/8	Lecture 1: Introduction to Biology Lecture 2: Water Lecture 3: Biomolecules	Chapters 1-3
	Due Sun 8/8 11:59 PM	HOMEWORK 1 (Introduction; Water) HOMEWORK 2 (Biological Molecules; Enzymes) LECTURE ASSIGNMENT 1 LAB 1: OSMOSIS LAB 2: ENZYMES	
2	Mon - Sun 8/9 - 8/15	Lecture 4: Cells Lecture 5: Cell Membranes Lecture 6: Photosynthesis and Cellular Respiration	Chapters 3-5
	Due Sun 8/15 11:59 PM	EXAM #1 - Open Friday, August 13 - Sunday, August 15 HOMEWORK 3 (Cells) HOMEWORK 4 (Cell membranes; Membrane transport) HOMEWORK 5 (Photosynthesis; Cellular Respiration) LECTURE ASSIGNMENT 2 LAB 3: CELLS LAB 4: PHOTOSYNTHESIS	
3	Mon - Sun 8/16 - 8/22	Lecture 7: Cell Division Lecture 8: Genetic Inheritance Lecture 9: Chromosomes and Sex-Linked Inheritance Lecture 10: DNA	Chapters 6-9
	Due Sun 8/22 11:59 PM	EXAM #2 - Open Friday, August 20 - Sunday, August 22 HOMEWORK 6 (Cell division) HOMEWORK 7 (Genetic inheritance) HOMEWORK 8 (Chromosomes and sex-linked inheritance) LECTURE ASSIGNMENT 3 LAB 5: MITOSIS & MEIOSIS LAB 6: PLANT GENETICS	
4	Mon - Sun 8/23 - 8/29	Lecture 11: Transcription and Translation Lecture 12: Biotechnology	Chapters 9-10
	Due Sun 8/29 11:59 PM	EXAM #3 - Open Friday, August 27 - Sunday, August 29 HOMEWORK 9 (DNA; Transcription and translation) HOMEWORK 10 (Natural selection) HOMEWORK 11 (Population genetics; Macroevolution) LECTURE ASSIGNMENT 4 LAB 7: DNA LAB 8: DNA GEL ELECTROPHORESIS BIOTECHNOLOGY FORUM DISCUSSION GENETIC TRAITS POLL	
5	Mon - Sun 8/30 - 9/5	Lecture 13: Natural Selection Lecture 14: Population Genetics Lecture 15: Macroevolution	Chapter 11
	Due Sun 9/5 11:59 PM	FINAL EXAM - Open Friday, September 3 - Sunday, September 5 LAB 9: NATURAL SELECTION LAB 10: POPULATION GENETICS	