

General Biology: BI 102

LBCC, Spring 2020 (CRN 40594)

Instructor: Trish Khuu

Email: khuut@linnbenton.edu

Office Hours:

You may contact me via email or Moodle

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.

Recommended Prerequisite: MTH 060

BI 102 is taught as a discrete and separate course in biology. It is not necessary to have any other biology courses (BI 101 or BI 103) before taking this course.

Texts: (all Required)

- OpenStaxfreetextbook: Concepts of Biology, <https://openstaxcollege.org/books>
- LabPacketBI102 General Biology Laboratory Course Packet: LBCC Biology Department

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

Grading (subject to change):

Review Questions	= 64 (12.2%)
6 Online quizzes@ 20 points each	= 120 (23.0%)
9 Labs @ 10 pts each	= 90 (17.1%)
3 exams @ 50 points each	= 150 (28.6%)
Final Comprehensive exam	= 100 (19.1%)
Total	= 524 points

Review Questions:

Corresponding to each lecture will be a set of review questions specific to the lecture that must be **completed by FRIDAY of that lecture week**. These questions are intended to help you focus on the topics and to keep up with the large amount of material. Though graded, you will have unlimited attempts to answer the questions

Quizzes:

As noted on the syllabus there will be 6 quizzes over reading and lecture material. It should be presumed unless your instructor tells you otherwise that the quiz will be over the reading, lecture and lab material covered in the previous class(es) since the last quiz. The quizzes will be timed and you will have only ONE (1) ATTEMPT for each question. Quizzes will be posted on WEDNESDAY MORNING and must be completed by MIDNIGHT WEDNESDAY of each week, starting Week 2

Labs:

Labs are a critical component for the learning processes in any science class. They foster critical thinking, requiring students to analyze and interpret data. Each lab is worth 10 points. There are ten (10) labs in the term but you will only be graded on your 9 highest point total labs. You will be responsible for the material from all ten (10) labs on the exams. For each lab, a set of questions will be posted on the day of lab and must be completed by the next MONDAY.

Exams:

The three exams will be posted online by 9am on the date of the exam (April 29, May 20 and June 10) and need to be completed by midnight of that same day. Each exam will be timed and only ONE (1) ATTEMPT for each question.

CLASS POLICIES

Missed and late work: Late work (assignments and labs) will be accepted with a 20% point reduction for each day late. Missed assignments or labs cannot be made up. If you miss an exam or quiz you need to contact me as soon as possible to schedule a makeup time. No make-ups will be given after the quiz or exam is handed back. Only ONE missed test (quiz or exam) can be made up, though exceptions with proper documentation.

Academic Misconduct: This will not be tolerated and includes any form of cheating. 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 or quiz. All work should be the student's own interpretation and work. 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.

Incomplete Policy: An incomplete (IN) will only be issued when a student is unable to complete the last exam by the end of the term, and each 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): **January 13, 2020 (in person)**. To drop a class or withdraw from school, you may turn in a Schedule Change form at the Registration Counter or at a community center or use 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. The last day to drop a class and receive a tuition refund is the Monday of the 2nd week. The last day to withdraw (no refund) is last day of week 7.

Special Accommodations and Disability Services: 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 the instructor during the first week of class. If you have not accessed services and think you may need them, please contact Disability Services, 917-4789.

Linn-Benton Community College is an equal opportunity educator and employer.

TENTATIVE SCHEDULE

Trish Khuu: khuut@linnbenton.edu

	Monday and Wednesday (Lecture)	Friday (LAB)
Week 1	<p style="text-align: center;">Course Introduction & Macromolecules Ch 1.2; Ch (2.2), 2.3</p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 1</u> : Cells & Osmosis</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 2	<p style="text-align: center;">Cells and Cell Membranes: Ch 3.2 – 3.6</p> <p style="text-align: center;"><i>Quiz 1 (Wed., Apr. 15)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 2</u> (1/17): Enzymes</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 3	<p style="text-align: center;">Enzymes, Photosynthesis & Cell Respiration Ch 4.1 – 4.2, Ch 5.1</p> <p style="text-align: center;"><i>Quiz 2 (Wed., Apr. 22)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 3</u> (1/24): Photosynthesis</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 4	<p style="text-align: center;">Exam 1 (Wednesday, April 29) Cell Division & Genetics Ch 6.2, Ch 7.1, 7.2</p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 4</u> (1/31): Cell Division</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 5	<p style="text-align: center;">Genetics Con't Ch 8.1 – 8.3, Ch 7.3</p> <p style="text-align: center;"><i>Quiz 3 (Wed., May 6)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 5</u> (2/7): Genetics</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 6	<p style="text-align: center;">DNA, Genetic Code, & Making Proteins Ch 9.1, 9.4</p> <p style="text-align: center;"><i>Quiz 4 (Wed., May 13)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 6</u> (2/14): Inheritance of Height</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 7	<p style="text-align: center;">Exam 2 (Wednesday, May 20) Darwin & Evolution Ch 11.1, 11.2 11.3</p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 7</u> (2/21): DNA Gel Electrophoresis</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 8	<p style="text-align: center;">Evolution of New Species Ch 11.4</p> <p style="text-align: center;"><i>Quiz 5 (Wed., May 27)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 8</u>: Natural Selection</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 9	<p style="text-align: center;">How Populations Evolve Ch 11.4</p> <p style="text-align: center;"><i>Quiz 6 (Wed., Jun. 3)</i></p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 9</u>: TBD</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 10	<p style="text-align: center;">Exam 3 (Wednesday, June 10) Biotechnology Ch 10.1 – 10.3 Review for Final</p> <p style="text-align: center;">REVIEW QUESTIONS for each lecture due by FRIDAY</p>	<p><u>Lab 9</u>: TBD</p> <p style="text-align: center;">LAB QUESTIONS due the following MONDAY</p>
Week 11	<p style="text-align: center;"><u>Final Exam:</u> Comprehensive</p>	