Biology 102 Syllabus (CRN 30651)

## Instructor Information and Availability

Erin Chamberlain

chambee@linnbenton.edu

Mondays and Wednesdays 1:30-2:00 (also available by appointment)

Office: WOH 220

## Course Information

Monday and Wednesday: 12:00-1:20

Friday: 12:00-1:50 LAB DAY

Classroom: WOH 205

## Course Materials

Required:

* ***Concepts of Biology***- OpenStax textbook. Available free online at: [Concepts of Biology Textbook](https://openstax.org/details/books/concepts-biology) or for purchase at the bookstore.
* ***BI 102 General Biology Lab Packet***.
* ***Class Moodle Site:*** <http://elearning.linnbenton.edu>
* ***Green book***

## Course Description

This course is an introductory course to Biology with emphasis on cell processes, genetics and evolution. It is designed for non-science majors or undecided majors. It is an opportunity to begin to explore, learn about and appreciate our diverse and beautiful living world and how these processes are a part of our day to day lives.

## Student Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Distinguish between the groups of biomolecules

2. Be able to describe selected key cell processes

3. Be able to describe the patterns of inheritance

4. Express how changes in the genome can affect the phenotype or traits within a population

5. Explain how natural selection drives evolution

# Class Policies

## Behavior and Expectations

Students are most successful when they ask questions, actively participate in class, and complete assignments. The more effort that you as the student puts in the more that you will get out of this class- Biology is a wonderfully interesting subject and I hope you can leave here with the knowledge and critical thinking skills to look at the world around you a bit differently. As an instructor I am here to support you so please contact me or see me during office hours with any questions/concerns you may have.

### Academic Integrity

This class is highly collaborative; however, there are expectations for individual work. If it is ever unclear to you, please ask. Any cheating, plagiarism, etc., may result in a zero and possible recommendation to the administration for further consequences. You are held accountable to the [Student Code of Conduct](https://www.linnbenton.edu/current-students/administration-information/policies/students-rights-responsibilities-and-conduct), which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct.

### Statement of Respect

Your instructor will make every attempt to create an environment free of distraction and one open to free discourse. The college environment is one of exploring ideas, but also in a context of mutual respect for your peers and instructors. If a pattern of disrespect develops the instructor reserves the right to discuss appropriate behavioral expectations with individuals who may not fully understand this responsibility. At no time will a hostile or condescending classroom environment or discussion be permitted.

### Use of Cell Phones

Cell phones are required to be silenced and put away during class. Cell phones are a part of life but it is expected they are put away during class, as they are distraction to our goal of creating an environment for everyone to learn.

## Grading

*Homework:* 34 pts

*Office Visit:* 4 pts

*Reflections:* 17 pts

*Reading Quizzes:* 60 pts

*Exams:* 200 pts

*Prelabs/Labs:* 90 pts

**Total Points: 405 pts**

**Final Grade Breakdown**

|  |  |
| --- | --- |
| **Letter Grade** | **Percentage** |
| A | 90-100% |
| B | 80-89% |
| C | 70-79% |
| D | 60-69% |
| F | 0-59% |

### Homework

Homework is to be completed most weeks and is due at the beginning of class- no late homework will be accepted. It will be an opportunity to practice what we have covered that week and will be used in class for review and discussion. See the syllabus and Moodle class site for due dates. Each week’s homework is worth 4 points except for the podcast summary(10 pts). I will drop your lowest homework score excluding the podcast summary.

### In-Class

This class will be a combination of lecture and active learning. There will be questions and activities in which you will be expected to actively participate. Reflections will be due at the end of each class period (not including lab days).

### Reading Quizzes

I expect you to do the reading before coming to class. This way you will have some background of material before we cover it in class so we can use class time efficiently and effectively. I have provided reading guides that help you focus on key terms and concepts. Fill these out as you do the reading, and you may use them on the reading quizzes (10 pts each). ***Reading guides must be printed from Moodle and completed in your own handwriting.*** Quizzes begin promptly at the beginning of class, so if you are late you will have less time to complete them. I drop your lowest quiz.

### Exams

Exam 1 covers weeks 1-3. Exam 2 covers weeks 4-7. The final exam covers weeks 8-10 and is comprehensive. Exams include multiple choice and short answer questions and are based on lectures, reading, and labs. Once exams are returned to the class they cannot be made up. **Early finals can only be taken during finals week.**

### Labs

Labs are a critical component for the learning processes in any science class. They provide hands-on experience requiring students to make critical thinking decisions that may influence the outcome of the lab. This is a lab class and you must attend 60% (6 out of the 10) of the labs to pass this class. Pre-lab assignments are to be turned in at the beginning of each lab. Each lab is worth 10 points and will be graded using the following rubric:

* Lab Completion: 5 pts - I will check each section on understanding the objective, completion, detailed drawings. This will be done in class and be completed before class is over.
* Lab Report: 5 pts- These questions will be checking your understanding of the lab. I will be looking for well thought out answers that shows you understand the purpose of the lab. You can only turn this in if you have attended and completed the lab. It will be due the following lab class

### Make-ups

Homework are due at the beginning of the lab class and cannot be turned in late. Labs cannot be made up. Your lowest lab, quiz, and homework (excluding the podcast summary) will be dropped. If you need to miss an exam or quiz you need to contact me as soon as possible to schedule a makeup time in the student assessment center in RCH 111. No make-ups will be given after the quiz or exam is handed back.

### Incomplete Grades

Incomplete grade (IN) will only be considered if a student has talked to me in advance, and a signed agreement between the student and myself is completed. IN grade are assigned only if the student has a good reason for making the request, has only the minority of coursework to complete, and has scored a C or better on work that has been submitted.

# College Policies

## Disability and Access Statement

You should meet with your instructor during the first week of class if:

1. You have a documented disability and need accommodations.

2. Your instructor needs to know medical information about you.

3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources Online Services web page every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar 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.

# 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 in class, through a Moodle Announcement, or through LBCC e-mail.

# Class Schedule:

**Every Week:**

* Lab Reports due the following Lab Class

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Reading | Monday | Wednesday | Friday |
| 1 | *Chapter 2: 2.3,*  *Chapter 3: 3.1-3.6* | Intro to Biology  Cell membranes | Movement through the Cell Membrane  ***Homework #1*** | Lab # 1: Cells and Osmosis |
| 2 | Chapter 3: 3.4-3.6  Chapter 4: 4.1 | How cells obtain and use energy  ***Reading Quiz #1*** | Enzymes  ***Homework # 2*** | Lab #2: Enzymes |
| 3 | Chapter 5  Chapter 4: 4.2-4.4 | ***No Class*** | Photosynthesis/Cellular Respiration  ***Reading Quiz # 2*** | Lab #3: Photosynthesis |
| 4 |  | Photosynthesis/Cellular Respiration  ***Homework #3*** | **Exam 1** | Lab # 4: Cell Division: Mitosis |
| 5 | Chapter 6:6.1-6-3  Chapter 7:7.1-7:3 | Intro to Genome  Meiosis  ***Reading Quiz # 3*** | Intro to Genetics  ***Homework #4*** | Lab #5 Genetics |
| 6 | Chapter 8: 8.1-8.3 | Genetics  ***Reading Quiz #4*** | DNA  ***Homework # 5*** | Lab # 6 Polygenic Inheritance/ DNA replication |
| 7 | Chapter 9: 9.1-9.4 | ***No Class*** | From Gene to Trait  ***Reading Quiz #5*** | Lab # 7: DNA Gel Electrophoresis |
| 8 | CRISPR Radiolab podcast | From Gene to Trait  CRISPR  ***Podcast Summary Due*** | **Exam 2** | Lab # 8 Natural Selection |
| 9 | Chapter 11: 11.1-11.2 | Intro to Evolution  Natural Selection  ***Reading Quiz #6*** | Natural Selection continued  ***Homework # 6*** | Lab # 9 Horse Evolution |
| 10 | Chapter 11: 11.3-11.5 | Speciation  ***Reading Quiz #7*** | Evolution and Review for final exam  ***Homework #7*** | Lab # 10 Anole Lizard Speciation |
| Final |  | FINAL EXAM  1:00-2:50 |  |  |