# BI 102 — GENERAL BIOLOGY: MICROBES! LBCC, Fall 2021

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I expect you to use this frequently! We are meeting in person for labs, but that's only once a week, so reaching me throughout the week is best via email. I am at my computer typically ~10am-3pm, except when in labs on Wednesday, Thursday, and Friday (but I'll check in between

labs).

Study hours: Zoom, TBD

Class time: asynchronous lecture material throughout the week

labs in person, LIVE in IA 235, Thursdays 10:30 a.m.–12:20 p.m. masks required!

## My commitment to diversity and inclusion:

It is my goal to make our classes safe and respectful learning environments for everyone. Part of that is making everyone feel welcome, regardless of their background. The diversity of people in our class is an asset to our pursuit of scientific understanding. I broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical and learning ability. Please let me know if/how I can help you feel more welcome and supported in our class.

## Materials (required):

- "Concepts of Biology", available free online at: <a href="https://openstax.org/details/books/concepts-biology">https://openstax.org/details/books/concepts-biology</a> (or for purchase at the bookstore)
- access to Moodle online

#### **Course outcomes:**

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

- 1. Distinguish between the groups of biomolecules.
- 2. Describe selected key cell processes.
- 3. Describe 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.

### Method of evaluation:

Homeworks 70 pts Labs 90 pts

Quizzes 60 pts (15 pts per quiz) Exams 140 pts (70 pts per exam)

Final Exam 120 pts Forums 10 pts TOTAL 490 pts

note: distribution of points is subject to minor changes

**Grading:** A= 90–100%, B= 80–89%, C= 70–79 %, D= 60–69%, F= 0–59%

**Assignments:** You will have <u>weekly online homework</u> through Moodle. Questions/activities on these assignments are designed to help you in your studying and preparation for quizzes and exams. These are due before midnight on the Sunday following the material covered.

Labs: Labs are a critical component for the learning processes in any science class. This is a lab class, and you must complete 6 out of the 9 labs to pass this class. You may complete up to 2 labs remotely. These are due before midnight on the Sunday following the material covered.

Masks will be required in labs, as per the current Oregon Health Authority. This is a good chance to practice being mindful of microbes! We certainly want to work with those that benefit us, while taking care not to get hurt by those that harm us. Let's take care of each other!

**Quizzes**: Quizzes will be given throughout the term to assess how you are doing before we get to an exam. Quizzes will be on Moodle, timed.

**Exams:** There will be two exams during the course of the term and one partially comprehensive final exam. Exam dates are listed in the class schedule (last page of the syllabus). Exams will be timed (1hr for exams, 2hrs for final exam) and online (Moodle).

**Study skills:** You should be reading, practicing, critically thinking on what you learn, discussing the information with your classmates and friends, exploring the material with outside sources, and maybe even drawing, writing, singing, acting out, dancing, or any other means of helping yourself understand and remember the material that you may find works for you. Not every study method works for everyone. If you need help with study methods, please come speak with me, and I will give some suggestions and examples (probably not of a singing method).

The Learning Center, Academic Coaching (<a href="https://sites.google.com/linnbenton.edu/academic-coaching/">https://sites.google.com/linnbenton.edu/academic-coaching/</a>), the Writing Center, and Math Cafe are all great resources here at LBCC. Please speak with me if you want more information about these.

#### **Policies**

**Attendance:** You need to attend and complete at least 70% of the labs to be able to pass the class. That said, I will allow up to 2 labs done remotely to support you in staying home when you feel sick.

**Classroom etiquette:** Act like adults. My job is not to babysit you. Respect others' desire to learn. I reserve the right to ask you to leave a Zoom session or to remove yourself from a forum discussion.

**Late assignments are not accepted.** Please turn in assignments on time and completed. Online assignments will close at 11:55pm on the day they are due.

**Accommodations**: Students who may need accommodations due to documented disabilities, who have medical information that the instructor should know, or who need special arrangements in an emergency should speak with me during the first week of class. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at <a href="www.linnbenton.edu/cfar">www.linnbenton.edu/cfar</a> 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.

To that end, if a pattern of disrespect develops, I reserve 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.

**Academic dishonesty**: Please note that I take issues of academic and personal honesty very seriously. You are to treat assessments (quizzes and exams) like you would in an in-person class: <u>no notes</u>. Study as you would for an assessment in-person. If you're not sure, please ask me! **Any discovery of academic dishonesty will result in a grade of zero for the assessment and notification to the Dean** of our Division for further consequences.

"Today I am going to give you two examinations: one in trigonometry and one in honesty. I hope you will pass them both, but if you must fail one, let it be trigonometry."

-- Madison Sarratt (Vanderbilt University)

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

#### Title IX

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. You may additionally (or instead) make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

### **Campus Police/Emergency Resources**

You may review emergency services and resources at the LBCC Public Safety website. Campus Safety can be reached using the "code 2" button on any campus phone or by dialing x411 on campus or 541-917-4440 off campus. Dial 911 for off campus emergencies.

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.

# **Tentative schedule**

|         | Tuesday                      |             | Thursday (lab day!)              |       | Sunday               |       |
|---------|------------------------------|-------------|----------------------------------|-------|----------------------|-------|
|         |                              | 9/28        | (1000                            | 10/1  |                      | 10/3  |
| Week 1  | Intro to class,              | ,           | Cells, cell mem                  | -     | homework 1 and la    |       |
|         | science & biology            | ch1 and 3   | LAB: cells & osm                 | osis  | due                  |       |
| Week 2  | 9,                           | 10/5        |                                  | 10/7  |                      | 10/10 |
|         | quiz 1 due                   |             | Biomolecules                     |       | homework 2 and lab 2 |       |
|         | Biomolecules                 | ch2.2, 2.3  | LAB: enzymes                     |       | due                  |       |
| Week 3  |                              | 10/12       |                                  | 10/14 |                      | 10/17 |
|         | quiz 2 due                   |             | Cellular respiration             |       | homework 3 and lab 3 |       |
|         | Photosynthesis               | ch4.1, 5.1  | LAB: photosynth                  |       | due                  |       |
|         |                              |             |                                  | ch4.2 |                      |       |
| Week 4  |                              | 10/19       |                                  | 10/21 |                      | 10/24 |
|         | exam 1 due, Cell division    |             | Cell division                    |       | homework 4 and lab 4 |       |
|         |                              | ch6.1-6.3   | LAB: cell division               |       | due                  |       |
| Week 5  | 10/26                        |             | 10/28                            |       |                      | 10/31 |
|         | Sexual reproduction, meiosis |             | Genetics ch8.1-8.2               |       | lab 5 due            |       |
|         | ch7.1-7.3                    |             | LAB: plant genetics              |       |                      |       |
| Week 6  |                              | 11/2        |                                  | 11/4  | l <u> </u>           | 11/7  |
|         | quiz 3                       |             | Genetics                         |       | homework 5 and lab 6 |       |
|         | Genetics                     | ch8.3       | LAB: genetics                    |       | due                  |       |
| Week 7  |                              | 11/9        |                                  | 11/11 |                      | 11/14 |
|         | DNA,                         |             | DNA, biotechno                   | ٠,    | homework 6 and la    | ab 7  |
|         | making proteins              | ch9.1-9.4   | LAB: biotech                     | ch10  | due                  |       |
| Week 8  |                              | 11/16       |                                  | 11/18 |                      | 11/21 |
|         | exam 2                       |             | Evolution                        |       | lab 8 due            |       |
|         | Evolution                    | ch11.1-11.2 | LAB: evolution                   |       |                      |       |
| Week 9  | F. alatian                   | 11/23       | la altala.                       | 11/25 | <br>                 | 11/28 |
|         | Evolution,                   | 1442445     | holiday                          |       | homework 7 due       |       |
|         | natural selection            |             |                                  | 42/2  |                      | _     |
| Week 10 | !- A                         | 11/30       | Doviou                           | 12/2  | l                    | 12/5  |
|         | quiz 4                       |             | Review<br>LAB: natural selection |       | lab 9 due            |       |
|         | Speciation                   |             | LAB: natural selection           |       |                      |       |

Final exam will be on Moodle December 7

**Note:** Dates are subject to change based on how we advance in the course.