BI 102 General Biology Syllabus

WINTER 2020

4 credits, CRN: 31771, 34374

Instructor: Dr. Gail M. Moraru

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<u>Class Time</u>: WOH 205, TR 11:30 a.m.–1:50 p.m. **OR** 2:30–4:50 p.m.

Office Hours: WOH 219, M 12:30-1:30 p.m., TR 10:30-11:00 a.m., or by appointment

Materials (required):

- "Concepts of Biology", available free online at: <u>https://openstax.org/details/books/concepts-biology</u> (or for purchase at the bookstore)
- access to Moodle online
- BI 102 lab packet

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.

Nature of course content, topics and order covered: This is an Introductory Biology course aimed at teaching and increasing your awareness and understanding of major biological topics: molecular and cellular biology, classical genetics, mutations, and the evolutionary process. The course is an opportunity to explore and learn how these processes are part of our daily lives. The number of topics and chapters covered will depend on how quickly we are able to move through the material throughout the term.

Method of evaluation:

Assignments	70 pts	
Labs	90 pts	
Quizzes	60 pts (15 pts per quiz)	
Exams	140 pts (70 pts per exam)	
Final Exam	120 pts	
In-class activities	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 weekly online homework 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. 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% (5 out of the 8) 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:

- Pre Lab: 2 pts
- Lab: 4 pts—Understanding the objective and completing the lab. This will be done in class and be completed before class is over.
- Lab Report: 4 pts—These questions will your understanding of the lab. I will be looking for well-thought-out answers that show 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 class.

Quizzes: Quizzes will be given throughout the term to assess how you are doing before we get to an exam. Quizzes will be given at the beginning of class, so if you arrive late you will have less time to complete them.

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). If I am notified in advance that you cannot make it to an exam because of an unforeseen emergency, you will be given a makeup exam. Note, however, that a makeup exam cannot be given once exams have been handed back.

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 (second floor of Willamette Hall) and Writing Center are also great resources here at LBCC. Please speak with me if you want more information about these.

Policies

Attendance: You are college students, and a part of your college experience is determining how you learn best. I do not require attendance, but that means it is up to you to decide what is in your best interest. This course will cover a lot of ground very quickly and the exams will draw from all class material: readings, lectures, and classroom discussion. Participating in discussions and reflections in class is a good way to get thinking about the material and is part of your grade as well.

Classroom etiquette: Act like adults. My job is not to babysit you. Do not disrupt class. Respect others' desire to learn. I reserve the right to ask you to leave the classroom.

Late assignments are not accepted. Please turn in assignments on time and complete. 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 <u>www.linnbenton.edu/cfar</u> 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. Any discovery of academic dishonesty will result in a grade of zero for the assignment and possible recommendation to the administration for further consequences.

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 Sapling Announcement, or through LBCC e-mail.

Tentative schedule

	Tuesday	Thursday	Sunday
	1/7	1/9	1/12
	Introduction,	Cells, cell	homework 1 due
	about science & biology	membrane	
	ch2.3, 3.1-3.6	LAB: cells & osmosis	
Week 2	1/14	1/16	1/19
	quiz 1	Biomolecules	homework 2 due
	Biomolecules	LAB: enzymes	
	ch3.4-3.6, 4.1		
Week 3	1/21	1/23	1/26
	quiz 2	Cellular respiration	homework 3 due
	Photosynthesis	LAB: photosynthesis	
	ch5, ch4.2-4.4		
Week 4	1/28	1/30	2/2
	exam 1	Cell division	
	ch6.1-6.3, 7.1-7.3	LAB: cell division	
	2/4	2/6	2/9
	Sexual reproduction,	Genetics	homework 4 due
	meiosis	LAB: plant genetics	
Week 6	2/11	2/13	2/16
	quiz 3	Genetics	homework 5 due
	Genetics	LAB: human genetics	
	ch8.1-8.3		
	2/18	2/20	2/23
	DNA,	DNA, biotechnology	homework 6 due
	making proteins	LAB: electrophoresis	
	ch9.1-9.4	0.07	
Week 8	2/25 exam 2	2/27 Evolution,	3/2
		natural selection	
	Evolution		
	ch11.1-11.2	LAB: natural selection	0/0
	3/4	3/6	3/9 homework 7 due
	Evolution, natural selection	Evolution, natural selection	
	ch11.3-11.5	LAB: pop genetics 3/13	
Meete	3/11 quiz 4	Review	
Week	Speciation	LAB: fossils	
10	opeciation		

Final exam is March 17 from 12:30 to 2:20 p.m. OR 4:30 to 6:20 p.m.

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