Cell Biology for Health Occupations, BI112 CRN 12659 Linn-Benton Community College Summer 2021
Meeting Time – Virtual Zoom session Wednesday 10:00-11:20

INSTRUCTOR INFORMATION

Charlene LaRoux
E-mail: larouxc@linnbenton.edu
Office Hours: I will be available to communicate with students via email and Zoom (video conferencing). As an LBCC student you can start learning about video conferencing log in to your LBCC email, and then navigating to this website to access your Zoom account. https://linnbenton.zoom.us/

My aim is to work with you to help you achieve your goals, but that requires consistent effort and dedication from both of us. If you need to talk with me or ask questions, please email me. I am happy to help, but I need to hear from you.

Education is not the filling of a pail, but the lighting of a fire. ~ William Butler Yeats

Required Materials

Good news: your textbook for this class is available for free online! Your book is available in web view and you can find it on our Moodle page. There is a document (Electronic Bi 112 Textbook Links) at the top of the class page that you can download with all the links for each week of topics for the entire course. Also, each week has a list of the specific topics to read to help keep you organized, and these are summarized on the schedule at the end of this syllabus.

Student Study Packet: Ketchum, Lebsack, Lebsack and Skarda, BI 112 Cell Biology for Health Occupations – **You must order this from the LBCC Bookstore!**

Introduction

Cell Biology for Health Occupations introduces the Health Occupations student to the generalized human cell, including its structure, function, basic genetics and reproduction. The chemical and physical processes that affect the cell and its components will be examined throughout the course. This course covers the basic principles and vocabulary to prepare students for the study of human organ systems that occurs in Human Anatomy and Physiology BI 231, BI 232, and BI 233.

Course activities include lecture, discussions, homework, collaborative activities, developing models and being able to give explanations of those models to classmates, and written examinations.

Course Outcomes for Bi 112

Upon successful completion of this course the student 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) relate the chemical basis of cell function to life processes and 6) describe homeostasis, and the importance and function of homeostatic mechanisms in the body.

GROUP MEETING (Zoom meeting Wednesday 10:00-11:20)

During these sessions we will focus on a mixture of discussion, working on activities and assignments that will be due that week, and as needed providing brief supplemental lecture to address questions or provide clarification. The goal primarily will be for me to connect with you all, and to provide students the opportunity to converse with each other and myself regarding the course material. This is meant to enrich and improve students experience in the course, to provide better regular contact among participants, cultivate clarity for the course material and to build relationships which would be far easier and more natural in the face-to-face design. Although we are in an online course, and it is quite easy to feel isolated and disconnected I hope to facilitate the best possible outcomes for all students.

Course Assignments, Quizzes, Exams, and Grading

Course assignments, quizzes and exams give you a chance to review and to be challenged by the material you have learned and help you evaluate how you are doing in the course. During the term there will be 7 weekly quizzes, one midterm exam, a variety of homework assignments, and a comprehensive final exam. Timeliness should be an important component of all that you do, and this course will be no exception. **No late work is accepted in this class!!!**

Exams will consist entirely of multiple-choice questions. Some questions will test your memory of structures and functions while others will require an application of your knowledge to unique situations and problems. If for any reason you are unable to take a quiz at the scheduled time and fail to plan with the instructors prior to the exam, you will be allowed to replace the missed score with the midterm (if the quiz is before the midterm) or the final if the quiz is after the midterm. However, this will only be done once, and any other missed quizzes will result in a zero. **Communication is KEY to your success!**

Study Suggestions

There are many study strategies that can help you be successful in this class. These include the following: **keep up** with the information presented in class by **reviewing** a little each day, **reading your textbook** when there are areas that we have covered in class that are unclear to you, and be sure to **turn assigned work in on time**.

I strongly encourage students to form **study groups**. Almost all students who participate in study groups find the experience beneficial. Use your group to evaluate your learning prior to an exam. It is important for you to find out what you are clear on and what you do not understand before a quiz or exam: the study group allows you to do this in a non-threatening environment. If you can distribute your effort out over the entire term, rather than having to "cram" for exams you will learn better. You will find that every topic is connected to those that precede and follow. If you study and understand each topic as you go, you will have a firmer foundation for learning what comes next. More importantly, studying regularly helps you learn better.

Attendance Policy

Obviously in an online format there is no 'attendance' being taken. However, it is essential that you are participating in class every week. To help manage your time allocated to this course I will implement a set pattern for each week.

- Lecture slides and lecture videos are posted in two links each week.
- Activities and Homework will be assigned every week and all answers must be submitted in the electronic 'quiz' function on Moodle by **Thursday at Midnight**.
- There will be some form of assessment nearly every week. Either a lecture **quiz**, a **midterm** or a cumulative **final exam**.
- Exams must be completed by a set due date (typically **Friday at midnight** most weeks for quizzes and the midterm, or at Thursday at midnight for the final exam). These exams will be timed, but you can start them at any point from when they open until the due date.

Creating and Maintaining a Healthy Learning Environment

I value everyone as a learner in my classroom, and the online environment is no different. I expect that you will as well. I ask that we do not tolerate any disrespectful behavior towards anyone else in the class space be it face-to-face or online. If you have a problem with communication in class, please let me know. Maintaining a respectful and peaceful class atmosphere is an important component to facilitating your success as students.

The LBCC community is enriched by diversity. Everyone has the right to think, learn & work together in an environment of respect, tolerance & goodwill. I actively support this right regardless of race, creed, color, opinion, gender, sexual orientation, or any of the countless other ways in which we are diverse.

e-Learning Site (Moodle)

Moodle will be used extensively in this course as a means for communication and facilitation of success in this course. Throughout the term all lecture materials, lab materials and assignments will be posted to the Moodle site. As such, it is the responsibility of the student to establish their access to the Moodle site and check their LBCC email account regularly to keep up with correspondence regarding this class.

Plagiarism/Cheating Policy

Plagiarism or cheating will result in an F for the assignment. What is plagiarism? Turning in someone else's work as if it were your own: using sources (another person's ideas, words, or facts) without giving credit to them, and listing sources at the end of the paper or copying a paper off the Internet; etc. Although collaboration is important in learning, ultimately each student is responsible for demonstrating individual ability. **Cheating** on exams and copying homework will result in a zero for that activity and may result in further disciplinary action.

Exam results will be available after the exam closes. **Copying exam questions, taking pictures of exams, using internet sources during exams or other forms of documentation are strictly prohibited & any student engaging in such activities will earn a ZERO on the exam and will be reported to the Dean of Science Engineering and Math.**

Disability Statement

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

- you have a documented disability and need accommodations,
- your instructor needs to know medical information about you, or
- you need special arrangements in the event of an emergency.

If you think you may need accommodation services, please, contact Center for Accessibility Resources, 917-4789.

Your Grade

Your grade will be determined by your performance in several categories. Your grade will be calculated as a weight.

Quizzes 100	A = 90 - 100%
Midterms……..50	B = 89 - 80%
Activities/Homework.....35	C = 79 - 70%
Final Exam.....50	D = 69 - 60%
	F = 59% or below

The above distribution of points is an approximate and as with the course schedule may be subject to minor adjustment. However, even in the event of minor adjustment, grades will be determined as a weight that will remain consistent with the above agreement. Meaning that examinations will be ~85% of your grade & other work will comprise ~15% of your ultimate grade to be consistent with department standard.

Tentative Schedule (may be subject to change)

	Readings	Topics	Work
Week 1	**Starting Monday = 6/28** Topics: 1, 2 & begin 3	Organizing Principles Homeostasis and begin matter, elements, atoms, and periodic table	**Quiz 1**: **Due by Friday at midnight** Homework on Moodle
Week 2	**Starting Monday = 7/5** Topics: 3, 4, 5, & 6	Chemical Bonds, notation, balancing chemical equations & energy	**Quiz 2**: **Due by Friday at midnight** Homework on Moodle
Week 3	**Starting Monday = 7/12** Topics: 7, 8 (solutions and solutes)	Properties of water, solutions, and solutes	**Quiz 3**: **Due by Friday at midnight** Homework on Moodle
Week 4	**Starting Monday = 7/19** Topics: 8 (pH and buffers), 9 (carbon, synthesis of biomolecules & carbohydrates)	pH, buffers, and introduction to biomolecules and carbohydrates	**Quiz 4**: **Due by Friday at midnight** Homework on Moodle
Week 5	**Starting Monday = 7/26** Topics: 9 (lipids and proteins)	Lipids & proteins	**Midterm**: **Due by Friday at midnight.** Homework on Moodle
Week 6	**Starting Monday = 8/2** Topics: 9 (proteins, nucleic acids), 10, 11 (basics of cell membranes)	Finish proteins, nucleic acids and ATP, and cell membrane introduction.	**Quiz 5**: **Due by Friday at midnight** Homework on Moodle
Week 7	**Starting Monday = 8/9** Topics: 11, 12 (osmosis and transport continue in week 8)	Cell membranes, organelles, and transport mechanisms	**Quiz 6**: **Due by Friday at midnight** Homework on Moodle
Week 8	**Starting Monday = 8/16** Topics: 12 (continued) 13 and 14 (introduced and continued week 9)	Transport finished, DNA, Information Storage, Protein synthesis introduced.	**Quiz 7**: **Due by Friday at midnight** Homework on Moodle
Week 9	**Starting Monday = 8/23** Topics: 14 (continued), 15 & 16	Details of protein synthesis, cell cycle, mitosis, and meiosis	Homework on Moodle
Week 10	**Starting Monday = 8/30** Topics: 17	Genetics and Inheritance Autosomal, sex-linked, and other patterns	**Final Exam: Due by Thursday at midnight** Homework on Moodle

Every week there will be assignments due by Thursday at Midnight!!!
There are 7 quizzes, and 1 midterm due by Friday at Midnight!!!
And a cumulative final exam due by Thursday at Midnight!!!