BI 112 - Cell Biology for Health Occupations – Fall 2020

CRN: 21262
Course Format: Online & ZOOM Monday 10 – 11:30

Instructor: Steven Skarda
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Phone: please email
Class Website: MOODLE

****PLEASE NOTE**: This is remote learning with required lectures and activities via Moodle AND Monday Zoom. You must regularly check LBCC e-mail, and login regularly to Moodle for assignments and due dates.

COURSE DESCRIPTION AND OBJECTIVES

Cell Biology for Health Occupations introduces students 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 needed to prepare students for the study of human organ systems that occurs in Human Anatomy and Physiology: BI 231, BI 232, and BI 233.

After successful completion of BI 112, students should be able to:

1. Describe the importance and function of homeostatic mechanisms in the body
2. Relate the chemical basis of cell function to life processes
3. Express how changes in the genome affect the phenotype within a population
4. Describe the patterns of inheritance
5. Describe selected key cell processes
6. Distinguish between the groups of biomolecules

REQUIRED MATERIAL BI 112: Cell Biology for Health Occupations Study Packet

GRADING

Your grade will be determined by your performance in several categories. The distribution of points is only *approximate* and as with the course schedule, subject to change.

Exams	200	A = 90 - 100%
Activities/Homework	110	B = 80 - 89%
Final Exam	100	C = 70 - 79%
Total Points Possible	410	D = 60 - 69%
		F = 59.9% or below

CLASS ATTENDANCE, EXAMS, & MAKE-UPS

You are college students, and a part of your college experience is determining how you learn best. This course will cover a lot of ground very quickly and the exams will draw from all class material: readings and lectures. You are in charge of your time management and learning.

EXAMS will be mostly multiple-choice questions. Some will test your memory of structures and functions while others require an application of knowledge to unique situations. If for any reason you are unable to take an exam at the scheduled time, you may be given a make-up essay exam provided that you have contacted me *prior* to the exam. This will be done only once per term.

Cheating and Academic Dishonesty Although collaboration is important in learning, ultimately each student is responsible for demonstrating individual ability. Cheating on exams and copying homework/lab activity reports will result in a zero for that activity and may result in further disciplinary action. Code of Conduct All participants in the course are bound by the Linn-Benton Community

College Students' Rights Responsibilities and Conduct.

DISABILITY SERVICES AND EMERGENCY PLANNING

LBCC is committed to inclusiveness and equal access to higher education. If you have approved accommodations through the Center for Accessibility Resources (CFAR) and would like to use your accommodations in this class, please talk to me as soon as possible to discuss your needs. If you believe you may need accommodations, but are not yet registered with CFAR, please go to http://linnbenton.edu/cfar for steps on how to apply for services or call 541-917-4789.

Learning Platform

To access the Moodle component, go to the Linn-Benton website at: http://www.linnbenton.edu/,

On Moodle:

- Syllabus
- Course Schedule/Reading Schedule
- Additional Resources and Assignments
- Weekly Reviews
- Lecture Slides/Outlines
- Course Grades

There are 2 extra credit opportunities for using the Learning Center resources. You can and should use these resources to be successful, but if you use them by the Friday of week 4 and week 9, you can earn up to 5 points for each 10 point max.

STUDY SUGGESTIONS that can help you be successful in this class. These include:

- **Rewrite class notes** in your own words each day so you can gauge your understanding and ask questions on material you do not understand.
- **Keep up** with the reading and information presented in lecture by **reviewing** each day.
- **Take exams and turn assigned work in on time**.

It is very important that you keep up with the material and not get behind. Most students find it helpful to participate in a **study group** that meets for an hour or two once or twice per week to review material. Use the study group to check your knowledge, to quiz each other, to ask about points you don't understand, and to help each other learn difficult material. It is important for you to identify areas that are unclear and material you don't understand *before* a quiz or exam.

Additional instructional services, beyond classroom instruction, are available for all students at the Learning Center.

STUDENT BEHAVIOR

Although collaboration is important in learning, ultimately each student is responsible for demonstrating individual ability. **Cheating** on exams and copying homework/activities will result in a zero for that activity and may result in further disciplinary action. Exam results will be reviewed in class, but students will not be allowed to keep the exam questions. Any student may come to my office to review their exams in more detail, but no documentation of specific exam questions is allowed. Copying exam questions, taking pictures of exams or other forms of documentation are strictly prohibited at all times & any student engaging in such activities may face further disciplinary consequences. **Plagiarism** is also cheating and includes 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, not listing sources at the end of a paper or copying a paper off the Internet, etc. Further details about LBCC's policy on cheating may be found in the Administrative Rule: 7030-02, Academic Integrity. The basis for determining behavior and expectations in this class is outlined in the LBCC Student Handbook.

BI 112 - Cell Biology for Health Occupations Lecture and Exam Schedule, Fall 2020

Week	Monday Zoom and the rest of the weeks material on MOODLE
1 Sept 28	Course Introduction, Scientific Method, Organizing Principles, Homeostasis Matter, Elements, Atoms, & Periodic Table
2 Oct. 5	Chemical Bonding, Chemical Equations Balancing Equations, Metric System Chemical Reactions, Energy (I could use it!)
3 Oct. 12	**Exam #1** Properties of Water Solutes, pH & Buffers, Enzymes
4 Oct. 19	Enzymes, Organic Chemistry Biomolecules Protein, Carbohydrates
5 Oct. 26	**Exam #2** Lipids, ATP Nucleic Acids DNA &RNA
6 Nov. 2	Cell Theory DNA Replication Organization Membrane Structure, Membrane Permeability Cell Organelles, Osmosis
7 Nov. 9	**Exam #3** Membrane Potential Membrane Transport DNA, Information Storage, DNA Replication
8 Nov. 16	Protein Synthesis Cell Cycle/Cell Division Meiosis/Crossing Over Gametogenesis
9 Nov. 23	**Exam #4** Genetics, Inheritance, Mutations, & Disorders
10 Nov. 30	Inheritance of Blood Groups & Codominance Sex Linked Inheritance
	Final Exam On-line Wednesday, December 9th 10 to 12 am – two hours – be prepared and efficient with your time