BI 112 - Cell Biology for Health Occupations – SUMMER 2019

CRN: 12659 **Meeting: TWR 10:00 – 11:20 in WOH 212**
Instructor: Steven Skarda **Office:** WOH-222 **Office Hours: By Appointment**
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Class Website: MOODLE

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

Course activities include lecture, discussions, homework, collaborative in-class activities, writing prompts, online activities utilizing the Mastering platform, and multiple choice examinations.

REQUIRED MATERIAL

BI 112: Cell Biology for Health Occupations Study Packet
Scantrons (5)

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.....160	A = 90 - 100%
Activities/Homework.....40	B = 80 - 89%
Final Exam.....100	C = 70 - 79%
Total Points Possible.....300	D = 60 - 69%
	F = 59.9% or below

CLASS ATTENDANCE, EXAMS, & MAKE-UPS

Course assignments and exams give you a chance to review and to be challenged by the material you have learned. They help you evaluate how you are doing in the course. During the term there will be four exams, a variety of homework and in-class assignments, and a comprehensive final exam. ***All assignments are due at the beginning of class and will not be accepted after the first ten minutes of class***. If you know that you are going to miss a class, you can e-mail me your homework (a clear picture is fine), you can turn it in the day before or you can give it to someone else to bring to class on the day that the assignment is due.
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.

EXAMS

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 an exam at the scheduled time, you may be given a make-up essay exam **provided that you have contacted or attempted to contact me *prior* to the exam. This will be done only once per term. Students who do not contact me *prior* to an exam may not be permitted to take a make-up exam.**
Communication is key to make certain you have a good opportunity for completing exams.

LECTURE

Attending all classes is essential for achieving a good grade in this course. There will be a variety of activities occurring during these meetings including: lecture, discussions, worksheets, writing prompts, active learning activities, and group work. I encourage you to use your course schedule to identify the topics that we will focus on during class and scan the appropriate material in your textbook and study packet before class.

STUDY SUGGESTIONS

There are many study strategies 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 information presented in class by **reviewing** a little each day.
- **Read your textbook** when there are areas that we have covered in class that are unclear to you.
- **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.

Keeping up with reading and participating in a study group pays off in the long run because you will not have to "cram" for exams. More importantly, studying regularly helps you learn better. You will find that every topic is connected to those that precede and follow it. If you study and understand each topic as you go, you will have a firmer foundation for learning what comes next.

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

MOODLE

Moodle will be used for communication and facilitation of success in this course. Lecture material, supplemental material and assignments may be posted to the Moodle site. As such, it is the responsibility of the student to establish their access to the Moodle site and update their email address on the site to ensure they receive any correspondence from me or other students.

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.

- **Cell phones**: As a courtesy to your fellow students and instructor, please turn off all cell phones during class. **You may not talk on, text message, or otherwise use your cell phone in class.** It must be put away while class is in session. Anyone who answers or uses a phone in class will be considered to be creating a disturbance and treated accordingly, you may be asked to leave. Anyone who needs to have a phone on for emergency purposes must clear it with me prior to class.
- **Computers:** Personal computers will only be permitted for notetaking purposes. Devices being used for any activity unrelated to the course topic for that day will not be tolerated. Students engaging in e-mail, internet surfing/shopping, Facebook, etc. will be immediately required to put the device away.
- **Late policy:** Being timely is important as entering the classroom late is disruptive to the instructor and to your fellow students. If you are less than 5 minutes late, please quietly find a seat in the back of the class. If you are later than 5 minutes past the beginning of the start of class, and it has not been approved by me, do not disrupt the lecture by entering the classroom. Students demonstrating disruptive behavior will be asked to leave. Likewise, leaving class early is a disruptive behavior so plan to stay for the entirety of the class session. If you must excuse yourself early, please discuss your intention *before* class whenever possible.

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 ENVIRONMENT 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.
I value the learning experience of every student in my classroom. I ask that we do not tolerate any disrespectful behavior towards anyone else in the classroom. If you have a problem or witness anything in class, please let me know. Maintaining a respectful and peaceful classroom 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, and work together in an environment of respect, tolerance, and goodwill. I actively support this right regardless of race, creed, color, personal opinion, gender, sexual orientation, or any of the countless other ways in which we are diverse.

BI 112 - Cell Biology for Health Occupations Lecture and Exam Schedule, SUMMER 2017

Week	Tuesday	Wednesday	Thursday
1 June 25	Course Introduction Organizing Principles	Organizing Principles Homeostasis	Matter, Elements, Atoms, & Periodic Table
2 July 2	Energy Levels Chemical Bonding Chemical Notation	Balancing Equations Chemical Reactions Types of Energy	***No Class Today*** 
3 July 9	Enzymes	**Exam #1**	Properties of Water
4 July 16	Solutes, pH & Buffers	Carbohydrates	Lipids
5 July 23	Proteins	**Exam #2**	Nucleic Acids DNA &RNA
6 July 30	Cell Theory Structural Organization Membrane Structure	Membrane Permeability	Cell Organelles Osmosis
7 Aug 6	Membrane Potential Membrane Transport	**Exam #3**	DNA, Information Storage DNA Replication
8 Aug 13	Protein Synthesis	Cell Cycle/Cell Division	Meiosis/Crossing Over Gametogenesis
9 Aug 20	Genetics, Inheritance, Mutations, & Disorders	**Exam #4**	Genetics, Inheritance, Mutations, & Disorders
10 Aug 27	Inheritance of Blood Groups & Codominance	Sex Linked Inheritance	**FINAL EXAM** **August 29** **From 10:00- 11:50**