

Cell Biology for Health Occupations, BI112

GENERAL INFORMATION

INSTRUCTOR

Carolyn Lebsack, Office Location: WOH 209
Office Phone: 917-4775

Office Hours: Monday and Wednesday 2:30-3:30
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Please drop by my office and talk to me if you have any questions or want to discuss any aspect of the course. I will be there during scheduled office hours. If scheduled office hours are inconvenient for you, just drop by or make an appointment to see me at another time.

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.

Schedule

Group Meeting: Monday, Wednesday, and Friday
10:00 - 11:20 A.M, or 1:00 - 2:20 WOH 203

GROUP MEETING (MWF)/LECTURE

Attending all the classes is essential for achieving a good grade in the course. There will be a variety of activities occurring during these meetings including: lecture, discussions, discovery worksheets, active learning, collaborative in-class activities, Launchpad platform, and group work. I encourage you to use your course calendar to identify the topics that we will focus on during class and scan the appropriate material in your textbook before class. You are also encouraged to bring to class information from other sources that relate to topics we are covering in class.

Course Assignments, Quizzes, Exams, and Grading

Course assignments and exams give you a chance to review and to be challenged by the material you have learned. During the term there will be five exams. Timeliness should be an important component of all that you do and this course will be no exception. **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 then you can fax or e-mail me your homework, you can turn it in the day before or you can give it to someone else to bring to class on the day when the assignment is due. Exams, except for the final exam, 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, and fail to make arrangements with me prior to the exam, you will be given an essay make up exam and this will only be done once. Communication is the key to making certain you have a good opportunity for completing all exams and homework's.

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 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 don't understand before a quiz or exam: the study group allows you to do this in a non-threatening environment. If you are able to 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. Additional instructional services, beyond classroom instruction and instructor consultations, are available for all students at the Learning Center. Please take advantage of this valuable resource.

MOODLE

Moodle will be used in this course as a means for communication and facilitation of success in this course. Lecture materials, supplemental materials, 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.

LAUNCHPAD

Launchpad is an online learning platform that is accessible to students who have purchased the required materials for this course. Online assignments will be available throughout the term to help you manage the material presented in this course. This is an excellent resource for self-assessment as well.

STUDENT BEHAVIOR:

Plagiarism/Cheating Policy

Plagiarism 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/lab activity reports will result in a zero for that activity and may result in further disciplinary action. 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 Phone Policy

Cell phones will not be allowed out during class please be sure the ringers are turned off at all times unless you have instructor permission. Text messaging and using your cell phone as a calculator will not be allowed during class at any time. Calculators can be supplied by the instructor if needed.

Laptop computer policy

Personal computers will only be permitted for note taking 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.

LEARNING ENVIRONMENT

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 that you feel is inappropriate, 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.

Linn-Benton Community College is an equal opportunity educator and employer.

DISABILITY SERVICES AND EMERGENCY PLANNING

If you have an emergency medical condition, need special arrangements to evacuate campus, or have a documented disability, please meet with me no later than the first week of the term. We can meet to discuss your needs and review your CFAR accommodation letter. If you have a documented disability that will impact you at LBCC and you have yet to seek accommodations, contact the Center for Accessibility Resources (CFAR) to document your disability. Only students who document a disability and present an accommodation letter to me are entitled to academic accommodation. Each term, when you register, at least 2-3 weeks prior to the start of a term, submit your "Request for Accommodations" form to CFAR. During week 1, pick up letters for your instructors and deliver them in person to each instructor during office hours or by appointment. CFAR may be reached from any LBCC campus or center by email to ods@linnbenton.edu or by calling (541) 917-4789.

INCLEMENT WEATHER POLICY

If LBCC campus is open, class will be held as scheduled. Only if the campus is closed will an exam be postponed and this will be made up on the next scheduled class date following the closure. No special exceptions will be made for those who could not make it to class - be prepared for alternate methods. You may visit the college website for closure information.

BI 112 COURSE OUTCOMES

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

Your Grade

Your grade will be determined by your performance in several categories. The percent contribution of each category toward the final grade is shown below:

Exams	160	A = 90 - 100%
Activities/Homework.....	40	B = 89 - 80%
Final Exam.....	100	C = 79 - 70%
		D = 69 - 60%
		F = 59% or below

The above distribution of points is only approximate and as with the course schedule subject to minor changes. Your grade will be determined by your point standing in the class, which will be figured on a percentage basis.

One additional grade assignments is possible, an incomplete. An incomplete will be issued only if all course material other than the final exam has been completed and a contract detailing the plan and time frame in which the incomplete course work is to be finished, is signed by the student and the instructor, and is placed on file in the Division office.

Texts

Textbook: Phelan, What is Life? A Guide to Biology with Physiology packaged with Launchpad

Student Study Packet: Lebsack, Lebsack and Skarda, BI 112 Cell Biology for Health Occupations Study Packet.

Lecture Schedule; Spring Term, 2015

	Monday	Wednesday	Friday
Week 1	3-30 Course Introduction Organizing Principles	4-1 Homeostasis	4-3 Matter, Elements, and Atoms Periodic Table
Week 2	4-6 Energy Levels Chemical Bonds Chemical Reactions	4-8 Chemical Notations Balancing Chemical Equations Types of Chemical Reactions Types of Energy	4-10 Types of Energy Enzymes
Week 3	4-13 Exam #1 Properties of Water	4-15 Properties of Water Units of measurement	4-17 Properties of Water Solutions
Week 4	4-20 Solutes and pH Buffers	4-22 Carbohydrate	4-24 Carbohydrate/Lipid
Week 5	4-27 Exam #2 Lipid	4-29 Protein	5-1 Protein/Enzymes
Week 6	5-4 Nucleic Acids Comparing DNA/RNA	5-6 Cell Theory Structural organization of cells	5-8 Membrane Structures Organelles
Week 7	5-11 Exam # 3 Organelles	5-13 Organelles Membrane Permeability Diffusion	5-15 Osmosis Other methods of Transport

<p>Week 8</p>	<p>5-18 Membrane Potential DNA, Information Storage Protein Synthesis</p>	<p>5-20 Protein synthesis The Cell Cycle/Cell Division Mitosis</p>	<p>5-22 Cell Division/Meiosis Gametogenesis Crossing over</p>
<p>Week 9</p>	<p>5-25 Memorial Day No classes</p>	<p>5-27 Exam #4 Genetics and Inheritance</p>	<p>5-29 Patterns of Inheritance</p>
<p>Week 10</p>	<p>6-1 Mutations and Genetic Disorders</p>	<p>6-3 Last HW due Inheritance of Blood Dihybrid crosses Gender determination</p>	<p>6-5 Sex-Linkage Epigenetics</p>