

Cell Biology for Health Occupations (BI 112) Syllabus

General Information

Instructor Information and Availability

Instructor name: Dr. Pamela Beilby
E-mail address: beilbyp@linnbenton.edu
Office hours: Zoom, by appointment
Office number: N/A

Course Information

CRN: 41251
Scheduled time/day: Zoom, 1:30 – 2:50 pm, Wednesday
Number of credits: 4
Classroom(s): Internet

Course Materials

Required:

- BI 112 Cell Biology for Health Occupations Study Packet (from bookstore)
- Access to Moodle

Course Description

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.

Student Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Describe homeostasis, and 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 can affect the phenotype or traits within a population.
4. Explain the patterns of inheritance.
5. Explain selected key cell processes.
6. Distinguish between the groups of biomolecules.

Class Policies

Behavior and Expectations

You are held accountable to the [Students' Rights, Responsibilities, and Conduct](https://www.linnbenton.edu/current-students/administration-information/policies/students-rights-responsibilities-and-conduct.php) (<https://www.linnbenton.edu/current-students/administration-information/policies/students-rights-responsibilities-and-conduct.php>), which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct.

Grading

Assignments	100 points
Exams	160 points (40 points per exam)
Final Exam	100 points
TOTAL	355 points

Final Grade Calculation:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%

NOTE: 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 ~75% of your grade & other work will comprise ~25% of your ultimate grade to be consistent with department standard.

Remote course: This course will be taught entirely online. LBCC email is the primary route of communication and Moodle is the primary location of course delivery. Please check your email and Moodle DAILY! You will only be “seeing” me once a week at our weekly Zoom sessions (Wednesdays, 1:30 pm), where you will have an opportunity to ask questions, work through problems, etc. These are not required and will be recorded, but participation in these meetings is strongly encouraged as we move very quickly in this class. Please make sure you take full advantage of the meeting time to review information and ask questions. The rest of the course, including lectures and exams will be done online. Links for the lectures may be found on Moodle. Typically one lecture will be posted each week. Exams will be conducted through Moodle as described below.

Weekly homework assignments: Weekly homework assignments are discussed in lectures and referenced in the assignment on Moodle. Homework is due **every Friday** by 11:59 p.m., including one timed quiz based on the syllabus that will occur on Moodle on Friday, 1 April 2022, in week 1 (no fooling!). The quiz will focus on the material in the syllabus that directly relates to this course. You may take this quiz at any time during the day, but once you begin the quiz, you must finish in the allotted time.

Homework questions/activities are designed to help you in your studying and preparation for exams. Late work will not be accepted, unless previously arranged. Homework should be submitted on Moodle. Homework grades are primarily based on your effort to do as complete and accurate work as possible. If you have made a sincere effort to complete the assignment, you will typically receive full credit. However, please make sure to compare your work to the solutions posted on Moodle and ask questions if you do not understand why your answers were not correct.

Exams: There will be four midterm exams during the course of the term and one 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 due to an unforeseen emergency, you will be allowed to schedule a makeup exam. All midterm exams will be on Thursdays, on Moodle. The final exam takes place on Moodle on Wednesday, 8 June 2022. These will be timed exams and you will find it very difficult to finish them unless you are very well prepared. You may take them at any point during an exam day, but once you begin the exam, you must finish in the time allotted.

Study skills: You should be reading, practicing, critically thinking about 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. Not every study method works for everyone. If you need help with study methods, please come speak with me. 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 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.

This is a very challenging course. If you need extra help outside of class meeting times or office hours, Academic Coaching is here to help. This is a free resource for LBCC students. Please check out their website: <https://www.linnbenton.edu/student-services/library-tutoring-testing/learning-center/academic-coaching/index.php>

Attendance: As a student you are responsible for your registration, attendance, study habits and keeping up with course work. If you miss the class meeting, it is your responsibility to watch the recorded session and then contact me regarding any notes, materials, or assignments that you did not understand. I will not chase after each individual student to remind them to turn in assignments or study for exams. I will however provide students with ample and repeated warning regarding upcoming due dates and exam dates. Nonetheless, it is your responsibility to keep track of the schedule and to stay up to date with assignments and reading. To facilitate this goal a tentative schedule

of topics, reading material and exam dates has been included on the last page of this syllabus.

Incomplete grades (IN) will only be considered if a student has talked to me in advance, and a signed agreement between the student and myself is completed. IN grades are assigned only if the student has good reason for making the request, has only the minority of coursework to complete, and has scored a “C” or better on work that has been submitted.

Late Assignments are not accepted. Please turn in assignments on time and complete. No work may be made up after solutions are posted in Moodle.

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.

Moodle: Moodle will be used extensively in this course as a means for communication and facilitation of success in this course. Throughout the term lecture materials, supplemental 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 update their email address on the site to ensure they receive any correspondence from me or other students.

College Policies

LBCC Email and Course Communications

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email and your Moodle account through Moodle.

Disability and Access Statement

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 your instructor as soon as possible to discuss your needs. If you believe you may need accommodation but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar or steps on how to apply for services or call 541-917-4789.

Basic Needs Statement

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support (resources@linnbenton.edu , or visit us on the web www.linnbenton.edu/RRC under Student Support for Current Students). Our office can help students get connected to resources to help.

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.

Title IX Reporting Policy

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 (https://linnbenton-advocate.symplicity.com/public_report/index.php/pid115807?) 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, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

Public Safety/Campus Security/Emergency Resources:

In an emergency, call 911. Also, call LBCC Campus Security/Public Safety at 541-926-6855 and 541-917-4440.

From any LBCC phone, you may alternatively dial extension 411 or 4440. LBCC has a [public safety app](http://lbccpublicsafety.mobapp.at/landing/Desktop#.XJvjVC3MzOQ) (<http://lbccpublicsafety.mobapp.at/landing/Desktop#.XJvjVC3MzOQ>) available for free. We encourage people to download it to their cell phones. Public Safety also is the home for LBCC's Lost & Found. They provide escorts for safety when needed. Visit them to learn more.

Campus Resources

Learning and Career Center

The Learning Center provides academic support and a comfortable place to study, with access to computers and printer. It is located on the second floor in Willamette Hall. It also provides free tutoring services for all classes.

Changes to the Syllabus

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 Moodle announcement, or through LBCC e-mail.

Class Schedule

Week	Monday	Wednesday	Thursday	Friday
1	Introduction Organizing principles Homeostasis	Matter, elements, atoms Energy levels Chemical bonding		HW1
2	Units of measurement Chemical reactions Balancing equations	Chemical reactions Types of energy		HW2
3	Properties of water	Solutes, pH, and buffers	EXAM 1 14 April 2022	HW3
4	Carbohydrates, lipids	Proteins, enzymes		HW4
5	Nucleic acids	Cell theory Cell structure	EXAM 2 28 April 2022	HW5
6	Cell membrane Organelles	DNA information storage DNA to protein		HW6
7	Protein synthesis	Cell cycle Cell division	EXAM 3 12 May 2022	HW7
8	Meiosis Gametogenesis	Genetics		HW8
9	Genetics Inheritance Mutations and disorders	Genetics Inheritance Mutations and disorders	EXAM 4 26 May 2022	HW9
10	Inheritance Mutations and disorders			HW10
Final		FINAL EXAM 8 June 2022		