General Biology: BI 102 Section 05; CRN 24641 LBCC, Fall 2015

Instructor: Andrea Waite

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Office Hours: Wed 3:30 - 4:30PM, WOH 220

Schedule:

Lecture: M: WOH 205 2:00 - 3:20 PM

Lecture: W: WOH 205...... 2:00 - 3:20 PM

Lab: F: WOH 205 2:00 - 3:50 PM

Grading:

8 Labs @ 15 pts each = 120 points
10 Online homeworks @ 5 points each = 50 points
Misc. activities = 5 points
4 Quizzes@ 15 points each = 60 points
3 exams @ 55 points each = 165 points
Comprehensive final exam = 100 points
Total = 500 points

Introduction:

General Biology 102 is a course designed to help the learner discover the workings of the scientific process from a biological perspective. This course is designed for students at Linn-Benton Community College who are non-science majors. Students typically have little to no science background, yet are enrolled in this course to fulfill requirements needed for a degree and who desire to expand their knowledge and appreciation of the biological sciences. This course will fulfill your laboratory science distribution requirements at LBCC. This course focuses on processes of biology including understanding the importance of DNA, synthesis of other biological molecules, cell division, genetics, adaptation and evolution. Along with acquiring working knowledge of biological systems, a major goal of this course is for students to complete the course with an appreciation for, and enjoyment of, the day-to-day integration of biology into all aspects of their lives.

Course Learning Outcomes:

- Distinguish between the groups of biomolecules
- Be able describe selected key cell processes
- Be able to describe the patterns of inheritance
- Express how changes in the genome can affect the phenotype or traits within a population
- Explain how natural selection drives evolution

Quizzes:

As noted on the syllabus there will be 4 quizzes over reading and lecture material. The quiz will be over the reading and lecture material covered in the prior class(es). The quizzes will be closed book and closed note. You will be given 10 minutes at the **beginning** of the lecture day for taking the quiz. **NO LATE OR MAKEUP QUIZZES WILL BE OFFERED**

Labs:

Labs are a critical component for the learning processes in any science class. They provide hands-on experience requiring students to make critical thinking decisions that may influence the outcome of the lab. Students are also required to analyze and interpret data. Therefore, because it is imperative for students to come prepared each lab period, pre-laboratory assignments are to be turned in at the beginning of each lab. The pre-labs are usually the first one or two pages of each lab in the lab packet. Each lab is worth 15 points. There are ten labs in your packet, but we will only completenine (9) labs in the term (due to the Thanksgiving holiday). You will only be graded on your 8 best labs. You will be responsible for the material from all labs on the exams.

Recommended Prerequisite: MTH 060

BI102 is taught as a discrete and separate course in biology. It is not necessary to have any other biology courses (BI101 or BI103) before taking this course.

Texts:

- <u>BIOLOGY Life on Earth with Physiology</u>; Biology 102; Custom edition for LBCC by Audesirk, Audesirk, and Byers. Publisher - Pearson - Required
- Mastering Biology Access Code: Comes with the text or e-book.
- <u>Lab Packet BI 102</u> General Biology Laboratory Course Packet: LBCC Biology Department -Required

Online Homework: This class has an online homework requirement. When you purchase the textbook, it will come with an access code that will give you access to the Mastering Biology website through Pearson. You can access the class page at:

http://www.pearsonmylabandmastering.com/northamerica/masteringbiology/ or go to my instructor website for the link. The course access code is: MBWAITEBI102FALL2015 Each week you will have Mastering Biology (MB) homework assignments that will be due Sunday at midnight each week. All material on the homework is covered in your book, and the vast majority will be covered in class. Use your book and use your classmates to get all the points each week!

Cell Phones: NO CELL PHONES!! As a courtesy to your fellow students and to the instructor, please turn off your phone before class. Even when your phone is on "vibrate," if your classmates think, even for a second, that it is their phone ringing, you have broken their concentration. Text messaging is not allowed!

Laptops: Laptops are allowed in class but must be used only for class-related activities, such as taking notes or accessing online assignments (when instructor is not talking).

Missed and late work: Late lab writeups will be accepted one day late (next class period), with a 20% point reduction, ONLY if the student attended and completed the lab itself. Missed labs cannot be made up. No make-ups will be accepted for in-class activities or for quizzes. If you miss an exam you need to contact me before the next class period to schedule a make-up time. Only one make-up exam will be allowed per student per term. No make-ups will be given after the exam is handed back. The online homework will be automatically submitted on the due date and will not be accepted late.

Course Evaluations: Student feedback is important to improve this course and to help the instructor know how to change teaching methods. Student evaluations of teaching (SET) will be done electronically. It will be active weeks 5 - 9 of the term. The system is anonymous, and can be done from any electronic devise. You will receive email notifications for each of your classes, please fill these surveys out in a timely manner - it takes approximately 10 minutes per each class and is a highly valued resource for quiding the progress and evolution of the course. Thank you in advance for your input!

Academic Misconduct: This will not be tolerated and includes any form of cheating. The student is encouraged to read the college catalog for further details. If a student is found to have cheated on an exam, after due process the resulting grade may be a zero on the exam or quiz. All group work should still be written in the student's own handwriting and wording. You must turn in your own interpretation and work even if doing team work projects. Repeat violations of this policy will be referred to the Dean of Science, Engineering and Technology Division. Violations of academic honesty will be met with severe measures that may include failing the assessment, the course or expulsion from the college. Academic misconduct includes (but is not limited to) using ANY electronic devise during exams, quizzes or to answer in lab summary questions.

Incomplete Policy: An incomplete (IN) will only be issued when a student is unable to complete the final exam by the end of the term, and each incomplete grade will be accompanied by a signed contract specifying the conditions necessary to complete the course.

Withdrawing from Classes (Dropping a Class After the Refund Deadline)

To drop a class or withdraw from school, you may turn in a Schedule Change form at the Registration Counter or at an community center or use the Webrunner system. If you withdraw from a course after the refund deadline, you will receive a "W" grade in the class, you will forfeit all claims to refunds, and you will be financially responsible for any tuition and fees. The last day to drop a class and receive a tuition refund is the Monday of the 2nd week. The last day to withdraw (no refund) is last day of week 7.

Special Accommodations and Disability Services: Students who may need accommodations due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor during the first week of class. If you have not accessed services and thin you may need them, please contact Disability Services, 917-4789.

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

Course Grading

A = 90 - 100%

B = 80 - 89%

C = 70 - 79%

D = 60 - 69%

F = 59% or below

Tentative Schedule

Week	Date	Торіс	Recommended Textbook Reading
1	Mon	Lecture 1: Introduction to Biology	Ch 1.1 - 1.4
	9/28	Lecture 2: Water	Ch 2.3
	Wed	Lecture 3: Enzymes	Ch 6.1 - 6.5
	9/30	Lab Lecture 1: Cells and Osmosis	Pg 80 - 83
		Lecture 4: Biomolecules	Ch 3.1 - 3.6
	Fri 10/2	Lab 1: Cells and Osmosis	Pg 80 - 83
	Sun 10/4	WEEK 1 HOMEWORK DUE	
	Mon	QUIZ #1	
	10/5	Lecture 5: Cells (END OF MATERIAL FOR EXAM #1)	Ch 4.1 - 4.4
		(Last day to add/drop)	
2	Wed	Lecture 6: Cell Membranes	Ch 5.1 - 5.3
	10/7		
	Fri	Lab 2: Enzymes - Catalase	Ch 6.1 - 6.5
	10/9		
	Sun 10/11	WEEK 2 HOMEWORK DUE	
	Mon	WEEK E HOMEWORK DOE	
3	10/12	EXAM #1	
	Wed	Lecture 7: Photosynthesis and Cellular Respiration	Ch 7.1 - 7.3
	10/14		Ch 8.1, 8.3 - 8.4
		Lab 3: Photosynthesis	Ch 7.1 - 7.3
	10/16		
	Sun 10/18	WEEK 3 HOMEWORK DUE	
	Mon	QUIZ #2	
	10/19	Lecture 8: Cell Division and Cancer	Ch 9.1 - 9.10
		END OF MATERIAL FOR EXAM #2	
4	Wed	Lecture 9: Genetic Inheritance	Ch 10.1 - 10.6
	10/21		
	Fri	Lab 4: Mitosis and Meiosis	Ch 9.1 - 9.10
	10/23		

Tentative Schedule (continued)

Week	Date	Торіс	Recommended Textbook Reading
	Sun 10/25	WEEK 4 HOMEWORK DUE	
5	Mon 10/26	EXAM #2	
	Wed	Lecture 10: Chrmosomes and Sex Inheritance	Ch 10.7 - 10.8
	10/28		
	Fri 10/30	Lab 5: Plant Genetics	Ch 10.1 - 10.6
	Sun 11/1	WEEK 5 HOMEWORK DUE	
	Mon	QUIZ #3	
	11/2	Lecture 10 (Continued)	Ch 10.7 - 10.8
6	Wed	Lecture 11: DNA	Ch 11.1 - 11.5
	11/4		
	Fri	Lab 6: Human Genetics - Inheritance of Height	Ch 10.1 - 10.8
	11/6	(to be handed out in class by instructor)	
	Sun 11/8	WEEK 6 HOMEWORK DUE	
	Mon	Lecture 12: From DNA to Proteins	Ch 12.1 - 12.5
	11/9	END OF MATERIAL FOR EXAM #3	
7	Wed 11/11	VETERAN'S DAY - NO CLASS	
	Fri	Lab 7: DNA Electrophoresis	Ch 13.3
	11/13	(Last day to withdraw)	
	Sun 11/15	WEEK 7 HOMEWORK DUE	
8	Mon 11/16	EXAM #3	
	Wed	Lecture 13: Biotechnology	Ch 13.1 - 13.8
	11/18	Lecture 14: Natural Selection	Ch 14.1 - 14.4
	Fri 11/20	Lab 8: Natural Selection with Fork, Spoon, & Knife-Billed Birds	Ch 14.1 - 14.4

Tentative Schedule (continued)

Week	Date	Торіс	Recommended Textbook Reading
9	Sun 11/22	WEEK 8 HOMEWORK DUE	
	Mon	Lecture 14: Natural Selection (continued)	Ch 14.1 - 14.4
	11/23		
	Wed	Lecture 15: Population Genetics	Ch 15.1 - 15.3
	11/25		
	Fri		
	11/27	THANKSGIVING - NO CLASS	
10	Sun 11/29	WEEK 9 HOMEWORK DUE	
	Mon	QUIZ #4	
	11/30	Lecture 16: Macroevolution	Ch 16.1 - 16.4
	Wed	Catch-up and Review	
	12/2		
	Fri	Lab 10: Fossils	Ch 14.1 - 14.4
	12/4		
11	Sun 12/6	WEEK 10 HOMEWORK DUE	
		COMPREHENSIVE FINAL EXAM	
		WEDNESDAY, DECEMBER 9	
		3:00 - 4:50PM	
		WOH 205	