**BI 213—PRINCIPLES OF BIOLOGY, Online**

**LBCC, Spring 2020**

**Instructor:** Warren Coffeen, Ph.D.

Office: WOH 221

Email: coffeew@linnbenton.edu

**Zoom Office Hours: Monday 11-12, Tuesday 9-10, Wednesday 1-2**

You may also contact me via email to schedule a separate Zoom meeting

**Schedule:**

Lecture: Lecture material for each week will be posted by noon every Monday on Moodle. There will be no live lecture component. Lecture material will be delivered by written documents, videos, animations, and tutorials.

Lab: Lab material for each week will be available by noon on Wednesday in Moodle. You will perform all lab procedures and activities on your own, but are encouraged to contact your instructor with questions.

Live Check-in: Every Student will sign up for one of four Live Check-in times. This is an opportunity for you to connect with your instructor and other students and to ask questions about lecture and lab material.

*Sign up for your*[***Live Check-in time here.***](https://docs.google.com/document/d/1vPy7p5GK1c5PA5YV4agyGso0OBFLmEOfW7ZCnP805eg/edit?usp=sharing)

# Corequisite: The corequisite for BI 213 is a term of college chemistry (CH 112, 121, 150, or 221).

**Required Materials:**

*\**[*OpenStax Biology*](https://openstax.org/details/books/biology)*:*  Free Online book. Or any majors biology book would work (such as Campbell Biology or Raven Biology)

*\** Weekly Homework in Moodle

*\** BI 213 Lab Assignments available in Moodle

**Assessments**: (subject to change)

Labs (6 pts/lab x 9) = 54 points

Assignments/Check-ins = 30-40 points

Online Homework (6 pts/week) = 60 points

7 Quizzes@ 10 points each = 70 points

2 exams @ 50 points each = 100 points

Final Comprehensive exam = 100 points

 **Total = 410-420 points**

**Course Learning Outcomes:**

* Compare and contrast the two types of cell division.
* Describe the patterns of inheritance.
* Identify the steps and end-products in DNA replication and protein synthesis.
* Explain how natural selection drives evolution.
* Discuss biological community interactions.

 **Grading Scheme:**

 90 - 100% A

 80 – 89% B

 70 – 79% C

 60 – 69% D

 59.9 % and below F

**Quizzes and Exams**

There will be seven quizzes and two exams throughout the term. Quizzes and exams will cover material from lecture and from assigned readings in the book. Quizzes and exams will be every Friday and given on Moodle. Each quiz and exam will have a time limit, and you’ll have the option to take the quiz or exam either at 11 am or 1 pm on the day it is given.

**Labs:** Labs will consist of activities and assignments that will be provided on Moodle. Lab assignments may consist of written activities, websites, and/or videos. You will submit the lab assignment in Moodle.

**Live Check-in**: Each Thursday or Friday you will be required to check in with your instructor via Zoom. There will be four times slots available, you will [sign up for one of these](https://docs.google.com/document/d/1vPy7p5GK1c5PA5YV4agyGso0OBFLmEOfW7ZCnP805eg/edit?usp=sharing) times and keep that time for the rest of the term. Time slots are:

* Thursday 9-9:30
* Thursday 10-10:30
* Thursday 11-11:30
* Thursday 12-12:30
* Friday 9-9:30

**Missing Lab:** **You must complete 7 of the 9 labs in order to pass the class.**

**Extra Credit:** On a few occasions such as on the exams there may be extra credit, which will be high-challenge questions that can aid your score. This credit will generally not influence a grade more than 2-4% for the overall grade, but it could make a big difference in borderline grade situations. Extra Credit will NOT be issued or allowed for missed work – there are no exceptions to this rule. My general policy for all students is that “I cannot do for one student what I cannot do for all.” Please do not ask for exceptions due to poor performance, no extra credit work will be granted.

**Course Evaluations:**Student feedback is important to improve this course and to help the instructor know how to change teaching methods.  Changes will and have actually occurred as a result of student feedback.  Starting this term 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 device.  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 guiding 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 language. You must turn in your own interpretation and work even if doing teamwork 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 using ANY electronic device during exams, quizzes or to answer in lab summary questions.

**Basic Needs Syllabus 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. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

**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 a 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 the last day of week 7.

**Special Accommodations and Disability Services**: 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 the class, please talk to your instructor as soon as possible to discuss your needs. If you believe you may need accommodations but are not yet registered with CFAR, please visit the [CFAR Website](http://www.linnbenton.edu/cfar) for steps on how to apply for services or call 541-917-4789.

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

**BI 213 Topic Schedule and Readings Assignments**

**(Subject to change)**

**Warren Coffeen,** **coffeew@linnbenton.edu****, WOH 221**

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| **Week** | **Lecture and Readings** | **LAB** |
| 14/6-4/10 | **Topic 1: Cell Division, Chromosomes, Mitosis** ([Ch 10: 10.1-10.2](https://openstax.org/books/biology-2e/pages/10-introduction))  **Meiosis** ([11.1 & 11.2](https://openstax.org/books/biology-2e/pages/11-introduction) move to week 2)**FRIDAY QUIZ 1** | Lab 1: **Mitosis and Meiosis** |
| 24/13-4/17 | **Topic 2: Genetic Inheritance** ([Ch 12](https://openstax.org/books/biology-2e/pages/12-introduction)) **FRIDAY QUIZ 2** | Lab 2: **Genetic Analysis** |
| 34/20-4/24 | **Topic 3: Sex Linkage, Chromosomes and Linkage** ([Ch 13](https://openstax.org/books/biology-2e/pages/13-introduction))**FRIDAY QUIZ 3** | Lab 3a: **Plasmid Mapping part 1** |
| 44/27-5/1 | **Topic 4: DNA Structure and Replication (**[Ch 14](https://openstax.org/books/biology-2e/pages/14-introduction))**FRIDAY Exam #1** | Lab 3b: **Plasmid Mapping part 2** |
| 55/4-5/8 | **Topic 5: Making Proteins (**[Ch 15](https://openstax.org/books/biology-2e/pages/15-introduction))**Topic 6: Cloning and CRISPR (**[Ch 17.1](https://openstax.org/books/biology-2e/pages/17-1-biotechnology))**FRIDAY QUIZ 4** | Lab 4a: **DNA Fingerprinting part 1** |
| 65/11-5/15 | **Topic 7: Darwin and Evolution (**[Ch 18.1](https://openstax.org/books/biology-2e/pages/18-1-understanding-evolution)) **FRIDAY QUIZ 5** | Lab 4b: **DNA Fingerprinting part 2** |
| 75/18-5/22 | **Topic 8: Population Genetics and Microevolution (**[Ch 19](https://openstax.org/books/biology-2e/pages/19-introduction))**FRIDAY QUIZ 6** | Lab 5: **Natural Selection** |
| 85/25-5/29 | **Topic 9: Macroevolution** ([Ch 18.2](https://openstax.org/books/biology-2e/pages/18-2-formation-of-new-species))**Topic 10: Population Ecology (**[Ch 45.1-45.5](https://openstax.org/books/biology-2e/pages/45-1-population-demography))**FRIDAY EXAM #2** | Lab 6: **Hominid Fossils**  |
| 96/1-6/5 | **Monday: Memorial Day****Topic 11: Community Ecology (**[Ch 45.6](https://openstax.org/books/biology-2e/pages/45-6-community-ecology))**FRIDAY QUIZ 7**  | Lab 7: **Food Webs** |
| 106/8-6/12 | **Topic 12: Ecosystems and Energy Transfer (**[Ch 46.1-46.2](https://openstax.org/books/biology-2e/pages/46-1-ecology-of-ecosystems))**FRIDAY FINAL EXAM** |  |
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