**BIO 102**

**General Biology**

**Winter 2020**

CRN 30403-BI102:

Lecture: Tuesday & Lab: Thursday, 8:30 – 11:50, BC-207

Instructor: Greg Coleman

Office: BC - 201

Office hours: Tuesday and Thursday 10:50 – 11:30, or by appointment

Office phone: 541-760-5664

e-mail: greg.coleman@linnbenton.edu

Home phone: 541-760-5664 (voicemail)

**Required Text and Packets (From the Bookstore):**

* Text book : go to https://openstax.org/. Click on Science, then Concepts of Biology, and select the method of dissemination. –  **Openstax is a product of** © 2013 by Rice University
* Lab Packet BI 102 General Biology Laboratory Course Packet: LBCC Biology Department - ***Required***

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**Course Overview**

Biology 102 is an introduction to cell biology, DNA, synthesis of biological molecules, genetics, genetic technologies, adaptation and evolution.

This course is intended for **NON-Science majors.** If you plan on majoring in a field of science this is probably not the class for you. Check with your intended transfer school and program for their specific degree requirements. Biology 102 is the second course in a three term sequence of general biology (101, 102, and 103). 100 level general biology courses are structured to be taken in any order. There are no prerequisites for this class.

**Request for Special Needs or Accommodations**

Direct questions about or requests for special needs or accommodations to the LBCC Disability Coordinator, RCH-[105, 6500 Pacific Blvd. SW, Albany, Oregon 97321](https://maps.google.com/?q=105,+6500+Pacific+Blvd.+SW,+Albany,+Oregon+97321&entry=gmail&source=g), Phone 541-917-4789 or via Oregon Telecommunications Relay TTD at 1-800-735-2900 or 1-800-735-1232. Make sign language interpreting or real-time transcribing requests 2-4 weeks in advance. Make all other requests at least 72 hours prior to the event. LBCC will make every effort to honor requests. LBCC is an equal opportunity educator and employer.

**Important Dates:**

1st Lecture Exam: Tuesday, Jan. 28

2nd Lecture Exam: Tuesday, Feb. 25

**Final Exam** Tuesday, March 17th, 7:30 – 9:20

Bio 102 Winter 2020

**Help for Basic Needs**

 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](http://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.

**Grading:**

 All grading is based upon mastery of the subject matter of this course. Points

 towards your final grade will be awarded as follows:

 First hour exam 100 Grade cut-offs.

 Second hour exam 100 A >90%

 Final exam 200 B 80 - 90%

 Pre-lab exercises 9 @ 5 45 C 70 - 80%

 Labs 10@ 5 50 D 60 - 70%

 **Lab reports 10@ 5** 50 F <60%

 Online moodle quizzes 60

 Total 605 (actual total may be different)

**Additional Grading Options:**

 Two additional grade assignments are possible; incomplete and Y. An incomplete

 will only be assigned when all course material except the final exam has been

 completed. The Y, which indicates insufficient basis for a grade, will only be

 assigned to students that completed less than 50% of the course and neglected to

 drop from the course.

**Student Behavior:**

Attendance and participation are essential components of this class. Class

 meetings will center on small group activities, which all students must participate

 in. Learning is best accomplished through collaboration among students. These

 student groups work best when their focus is on members’ strength rather than

 their weakness. As such, **derogatory or condescending behavior or remarks**

 **towards other students will not be tolerated.**

 Although collaboration and group activities are a central part of this course, each

 student is ultimately responsible to demonstrate their mastery of the subject

 matter. Classroom activities submitted for credit, including exams and quizzes,

 must be completed individually unless otherwise stated by the instructor.

 If a student misses class, it is that student's responsibility to determine material

 missed, obtain handouts, make-up assignments (when possible), and to keep track

 of upcoming assignments and due dates.

Bio 102 Winter 2020

**Late Assignment Policy:**

 Lecture and lab assignments are due at the beginning of class on the due date of

 the assignment unless otherwise indicated. The due date will be printed on the

 assignment or announced in class. Assignments will not be accepted after the due

 date.

 Students are expected to attend and be on time for all lectures and labs. Students

 that will be late for a class or will miss a class entirely should notify the instructor

 before such absence/tardy occurs. If a student must miss class, that student should

 plan to turn in any assignment before class to receive full credit.

**Exams:**

 Two one hour exams will be given during regularly scheduled lecture times.

 These exams will consist of approximately 50% in multiple choice questions

 and 50% short essay questions. The first exam will cover material from the

 text readings, lecture, labs, and assignments for weeks one through three. The

 second exam will cover material from the text readings, lecture, labs, and

 assignments from weeks four through seven. The final exam will be cumulative

 covering all material throughout the term and your score will represent your

 mastery of the subject matter. It is very important that the exams be taken on time,

 and you will only be excused from an exam for substantial reasons. All excused

 midterms or exams can be made up with no penalty but they need to be made up

 within three days. Unexcused exams can be made up within three days, but are

 only worth 90% of original points. If any exam is not completed within three days,

 the student will be assigned a “0” for that exam.

**Lab Assignments**

 Lab assignments are due on the day of lab unless otherwise stated by the

 instructor. Exam and quiz questions will be formulated using material from the

 labs and students need to understand the material from any labs that were missed

 **Students that miss more than two unexcused labs will automatically receive**

 **an “F’ for this course**. There are nine pre-labs due at the beginning of the lab

 period for which they are written (see schedule and lab packet)

 These pre-labs are graded and are worth 5 points each. It is imperative that you

 come to lab prepared for that days activity in order to do well in the lab. Time

 constraints dictate that every student is prepared before lab starts because

 otherwise there would not be enough time to finish that lab assignment.

 **In order to pass this course you must earn at least 60% of the lab points**

 **possible**

Bio 102 Winter 2020

**Obtaining Assistance:**

Students may drop by the adjunct instructor's office during the office hours listed

 on page one of this syllabus. Students may also arrange an appointment that better

 fits their schedule. Students may also e-mail or phone when they have a question

 (allow 24 hours for e-mail).

**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 think you may need them,

 please contact Disability Services, 917-4789.

**Plagiarism Policy**

 **Plagiarism will result in an F** for the assignment and, in serious cases, a F for the

 course. Plagiarism is turning in someone else’s work as if it were your own. This

 includes copying from sources (or making only slight changes), including ideas,

 words, or facts, without giving credit to your source; copying papers from the

 internet; cutting and pasting large blocks of information; having someone else

 write your paper for you. You will receive no credit for something you did not

 write.

**Cheating Policy**

We will be performing much collaborative work in this course, and you are

 encouraged to form study groups prior to exams. However, each student is

 responsible for demonstrating individual mastery of the subject matter. Cheating

 on exams and verbatim copying of homework or lab activities will result in a

 zero grade for that assignment. Continued **cheating** may result in a **failing grade**

 for this course.

**Homework Assignments**

During the term you will be required to complete a variety of homework

 assignments. Homework will be due at the beginning of class on their due date

 and will not be accepted after the first ten minutes of class. If you are going to

 miss class, you can e-mail the homework to your instructor, turn it in early, or

 have another student submit it in your place. Late homework will not be accepted.

Bio 102 Winter 2020

**Student Learning Expectations**

Students completing biology 102 should be able to apply their biology skills to

 their own life, as well as, display a fundamental grasp of the following concepts:

 1. Explain the fundamental aspects of the theory of cell life.

 2. Compare and contrast the structures and components of prokaryotic and

 eukaryotic cells as well as plant and animal cells.

 3. Describe processes (Mitosis and Meiosis) of cellular reproduction.

 4. Explain the basis for patterns of Mendelian and non-Mendelian inheritance.

 5. Discuss the structure and function of DNA.

 6. Explain how DNA and protein synthesis relates to gene expression.

 7. Apply basic understanding of DNA structure to the process of genetic

 engineering.

 8. Distinguish between macroevolution and microevolution.

 9. Discuss fundamental patterns of behavior and explain their relevance to
 evolutionary processes and outcomes.

**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.  (related to Board Policy #1015)**

**Withdrawing from Classes (If YOU drop a class after the Refund Deadline you lose $)**
To drop a class or withdraw from school, you may submit a **Schedule Change Form** to Registration or use the Webrunner system. If you withdraw from a course after the refund deadline, you will receive a "W" grade in the class and will forfeit all tuition and fees. The **last day to drop a class and receive a tuition refund is Monday of the 2nd week**. The last day to withdraw from class without receiving a letter grade is the last day of week 7.

Bio 102 Winter 2020

**BI 102 Winter 2020 Schedule**

CRN 30403-BI102:

Lecture: Tuesday, 8:30 – 11:50, BC-207, Lab: Thursday 8:30 – 11:50, BC-207

Instructor: Greg Coleman greg.coleman@linnbenton.edu

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| Week/Date | Tuesday Lecture | Thursday Lab | Readings |
| 1Jan. 6 - 11 | Introduction, expectations, The study of lifeCell Structure and function | **Lab 1: Cells & Osmosis** | Ch. 1 & 3 |
| **Last day to drop and receive refund January 13th** |
| 2Jan. 13 – 17 | Chemistry of life | **Prelab Due****Lab 2: Enzymes and catalase** | Ch. 2  |
| 3Jan. 20 – 24 | How cells obtain energyPhotosynthesis | **Prelab Due****Lab 3: Photosynthesis** | Ch. 4 & 5  |

 **1st Midterm Exam Tuesday Jan 28 (Chpts. 1, 2, 3, 4 & 5)**

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| Week/Date | Tuesday Lecture | Thursday Lab | Readings |
| 4Jan. 27 – 31 | **First Exam – Chpts.****1, 2, 3, 4 & 5**Reproduction at the cellular level The cellular basis of inheritance | **Prelab Due****Lab 4: Cell division Mitosis and Meiosis** | Ch. 6 & 7 |
| 5Feb. 3 – 7 | Patterns of inheritance | **Prelab Due****Lab 5: Genetics** | Ch. 8 |
| 6Feb. 10 - 14 | Molecular Biology | **Prelab Due****Lab 6: DNA and genomics** | Ch. 9 |
| **Last day to withdraw to receive a "W" rather than an "F" grade February 21** |
| 7Feb. 17 - 21 | Biotechnology  | **Prelab Due****Lab 7: DNA Electrophoresis** | Ch. 10 |

 **2nd Midterm Exam Tuesday, Feb. 25 (Chpts. 6, 7, 8, 9 & 10)**

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| --- | --- | --- | --- |
| Week/Date | Tuesday Lecture | Thursday Lab | Readings |
| 8Feb. 24- 28 | **2nd Midterm****Chpts. . 6, 7, 8, 9 & 10**Evolution and its processes | **Prelab Due****Lab 8: Fossils** | Ch 11.1 |
| 9Mar. 2 - 6 | Evolution and its processes | **Prelab Due****Lab 9: Population Genetics** | Ch. 11.2 |
| 10Mar. 9 - 13 |  Evolution and its processes |  **Prelab Due****Lab 10: Natural Selection** | Ch. 11.2 – 11.3 |
| 11Mar. 16 - 20 | ”**Final exam”****Tuesday March 17th****7:30 – 9:20 AM****@ BC-207** | **FINALS WEEK****Final covers everything from term****“Cumulative** |  |

**Final Exam (Tuesday March 17, 7:30 – 9:20 PM, @ BC-207)**

**(All times and schedules are tentative and can be changed by the instructor at any time without notification)**

Bio 102 Winter 2020