

Dakota College at Bottineau Course Syllabus Biology 150 Lab

Course Prefix/Number/Title: BIOL 150 General Biology Lab, Number of Credits: 1 semester credit

Instructor: Janelle Green, MS

Office: NSC 113

Office Hours: MWF: 9:00-9:50 and/or 11:00am-11:50am or with a scheduled appointment

Office Phone: 701.228.5472

Email: Janelle.a.green@ndus.edu

Lab Days/Times: Tues 1:00pm-2:50pm Thurs 8:00am-9:50am/10:00am-11:50am Location: NSC Room # 126

Course Description: The first semester of a two-semester sequenced study of the fundamental topics of biology, with an emphasis on cellular biology.

Textbook Requirement: Lura. 2017. BIOL 150 Lab Manual

Materials for Lab (Required):

1. 2 or 3 inch ring binder/folder specifically for this lab (you will turn this in to me)
2. Access to a hole punch, printer, paper
3. Email and blackboard (course materials, handouts, and announcement)
3. Pen or something to write with

Prerequisites: none

Course Objectives--Demonstrate an understanding and proficiency in the following:

1. Understand cellular and viral structure and function.
2. Understand fundamental biochemical principles.
3. Understand rudimentary classical genetics
4. Understand rudimentary molecular genetics and have a familiarity with various DNA technologies
5. Use knowledge about mechanisms of cellular and molecular processes.

Course Requirements and Grading:

- A = 100-90%
- B = 89.5-80%
- C = 79.5-70%

- D = 69.5-60%
- F = below 59.5%

Below is a table of course requirements. This is subject to slight modification based on the discretion of the instructor and the event of a lab cancellation.

Requirements	Points each	Total
2 Exams (Midterm/Final)	75	150
2 Formal Lab Reports	45	90
11 Lab Handouts	10	110
13 Lab Participation	5	65
6 Post Lab Quizzes	10	60
3 Simulations	10	30
		505 Approx. total points

Course Outline: (subject to change)

There is no lab the first week of courses and other dates to note: Assessment Day 10/14/2019 and no class 09/10/2019, 09/12/2019 and 11/26/20189.

Week 1 9/3 and 9/5	Syllabus/Lab Safety Contract/Sci Method
Week 2 No Labs *Week 1 Lab handout must be turned in to my office on/before 9/11/2019. *	
Week 3 9/17 and 9/19	Microscopy
Week 4 9/24 and 9/26	Diffusion and Osmosis
Week 5 10/1 and 10/3	Chemistry of Life
Week 6 10/8 and 10/10	Eukaryotic Cell Structure and Function
Week 7 10/15 and 10/17	Prokaryotic Cells/Streak Plating (not in manual)/ Midterm Exam
Week 8 10/22 and 10/24	Enzymes
Week 9 10/29 and 10/31	Photosynthesis
Week 10 11/5 and 11/7	Respiration
Week 11 11/12 and 11/14	Mitosis and Meiosis
Week 12 11/19 and 11/21	Inheritance and Probability
Week 13 12/3 and 12/5	Protein Synthesis
Week 14 12/10 and 12/12	Human Genetic Disorders
Week 15 Finals Week	Finals Exam

General Education Goals/Objectives:

Learning Outcome 1: Explains the interrelationships between humans and their environment and the role of science in their lives

Performance Indicator 3: Applies technology in the scientific process

Learning Outcome 2: Demonstrates an understanding of the natural environment

Learning Outcome 3: Applies scientific information in everyday life

Relationship to Campus Theme:

Class announcement/discussion on news items about technological developments in biology and how that influences the discipline as well as the societal aspects.

Covers DNA analysis, genetic engineering, and DNA fingerprinting

Knowledge on cell structure and function related to microscope development discussed.

Interject technological developments and how they influence scientific development and societal issues.

Classroom Policies:

- Participation is required in class. You will need to attend your registered section of lab unless otherwise agreed upon and scheduled by myself. If you have not done this you will be asked to leave.
- No food or drinks in the lab and consumption of lab materials is prohibited. All safety procedures should be followed. If not, you will lose your participation for the day and be unable to turn in your lab handouts/report for the week.
- Late assignments are not accepted. Please check Blackboard often and make note of dates presented in class.
- Lab Handout/Report Turn In: Turn in of labs should be done on or before the following lab day. There will be a basket for turn in inside my office door during office hours and available for 5 min at the start of the next lab. Labs will not be accepted after the first 5 min of class. Your lab work should be unique to you. Your partner may have different information based off of their thoughts or interpretations and should always be written in the students own words. Identical lab handouts/reports will not be accepted. If you are turning in on of your formal lab reports that should be submitted in Blackboard via word document. If you do not attend lab for the week you are **not** eligible to turn in lab handouts or a formal lab report.
- Excused absences will be for only the following reasons and still need to be discussed with me via email, text, or phone call: sickness with a doctor's note must be emailed to me, passing of a close family member, if you're an athlete and need to miss class for a game. You will still need to attend another lab time to be eligible for that week's handout and participation. You will need to schedule that with me. Do not just show up at a different lab time.

- All requests for absences need to be reported to me immediately. If you do not let me know why you have missed a class or discuss with me in advanced your participation for that day will result in a ZERO. You need to make advanced arrangements with me—the SOONER THE BETTER. You need to speak with me if you know you will be gone so we can schedule make up assignments. Do not just show up at a different lab time.
- Missing an exam: If you know you will be gone during an exam day you need to let me know THREE days in advanced. If you miss an exam and I am not aware that you were going to miss it then your grade for that exam will result in a ZERO. There will be no make-up exams for those who do not inform me of their absences on exam days.

Academic Integrity: Cheating and plagiarism is a serious and will not be tolerated in my class or lab.

- If you decide to cheat and/or plagiarize you will be given at minimum a ZERO for that assignment, test, or quiz and with more serious cheating/plagiarism you will need to meet with Associate Dean for Academic and Student Affairs.

Disabilities and Special Needs: If you have a diagnosed learning disability, you need to contact the Learning Center in Thatcher 1104 or phone (701) 228-5477 or Jacalyn Migler 228-5672 jacalyn.migler@dakotacollege.edu. Please speak with me in person about any disabilities/accommodations to make arrangements for exams. You must inform me that you have testing accommodations THREE days prior to each exam.

Email Policy: Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Blackboard policy: You are responsible for checking blackboard and doing coursework on blackboard for this class. If you do not do the assignments on blackboard you will get a ZERO for those assignments. Blackboard assignments must be completed by the time and date indicated by each assignment. No late assignments accepted. If you are going to be absent complete/turn in the assignment prior to your absence.

Electronic Device Policy: Electronic devices will only be used in class for answering in-class questions and review participation. You will be instructed to use them at those times. If you are on your phone/unauthorized computer/smart watch/headphones or any other unauthorized device while not instructed by myself then I will ask you to leave my class for that day. You should not be texting or on social media while in my class/lecture/lab. You cannot be wearing any smart technology during ANY exam. You will be asked to remove it. If you choose to not remove it then you will be asked to leave and you will not be able to complete the exam which will result in a ZERO.