

Course Prefix/Number/Title: BIOL 151 General Biology II

Number of Credits: 4

Course Description: A two-semester sequenced study of the fundamental topics of biology, with an emphasis on organismal biology.

Pre-/Co-requisites: BIOL 150 or Instructor Approval

Course Objectives: Demonstrate an understanding and proficiency with the following concepts:

1. Describe the unity and diversity of life, including structure and function, and how this relates to the environment.
2. Describe how life (or life forms) has (have) changed over time.
3. Understand basic evolution and evolutionary processes.
4. Develop an understanding of ecology.

Instructor: Dr. Jessica Guerrero

Office: Virtual

Office Hours: By appointment

Phone: 701-228-2277 (college phone)

Email: Jessica.Guerrero@dakotacollege.edu

Lecture/Lab Schedule: Online

Textbook(s): Connect Access Card with eBook. Biology. Raven, et al. 2023. 13th Edition. ISBN: 9781264903122

Course Requirements:

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

Requirements	Total
Orientation	90
Module 1	565
Module 2	605
Module 3	615
Course Project	100
Module 4	660
Module 5	885
Total	3520

Grading:

- A = 100-90%
- B = 89.5-80%
- C = 79.5-70%
- D = 69.5-60%
- F = below 59.5%

*Please do not request bonus points, rounding of a grade, or a grade change. If there is an opportunity for extra points you will be notified.

General Education Competency/Learning Outcome(s) OR CTE**Competency/Department Learning Outcome(s):**

- Goal 1: Explains the interrelationships between humans and their environment and the role of science in their lives.
- Goal 2: Demonstrates knowledge and application of technology.

Relationship to Campus Theme:

- Class announcement/discussion on news items about technological developments in biology, and how that influences the discipline as well as societal aspects.
- Knowledge of cell structure and function related to microscope development.
- Interject technological developments and how they influence scientific development and societal issues.

Classroom Policies:

Late Policy: Work is not accepted late for any reason.

Electronic Device Policy: Electronic devices should not be used during any examinations as they are prohibited and use of them will result in a Zero score and other academic integrity enforcement.

Student 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.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism, or other academic improprieties have occurred.

Cheating and plagiarism are 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 the Associate Dean for Academic and Student Affairs.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services within the first two weeks of the semester to line up accommodations. You will need to contact the Learning Center in Thatcher. Phone: 701-228-5435 Email: Erika.hamilton@dakotacollege.edu.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy, and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment, sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX Webpage.

Tentative Course Outline: (attached)

Orientation Assignments

Assignment	Points	Due Date
Review Course Syllabus	-	
Email Etiquette Agreement	10	
Honor Code Agreement: Plagiarism and Collusion	10	
Discussion Board Etiquette	10	
McGraw-Hill: Graphing Data Interactive	10	
McGraw-Hill: Connect Orientation Videos	10	
McGraw-Hill: SmartBook 2.0 Overview	10	
McGraw-Hill: Virtual Labs Orientation Videos	10	
McGraw-Hill: Fundamentals of Student Success	10	
McGraw-Hill: Introduction to Graphing Data and Graphing Interactive	10	

ORIENTATION TOTAL POSSIBLE POINTS- 90

Module 1- Evolution

Chapter 20- Genes within a Population

Assignment	Points	Due Date
Chapter 20 SmartBook	20	
Chapter 20 Assignment	10	
Chapter 20 Animations	10	
Fitness and Selection Data and Graphing Interactive	10	
Hardy-Weinberg Equilibrium Data and Graphing Interactive	10	
Chapter 20 Quiz (proctored)	40	

Chapter 21- The Evidence for Evolution

Assignment	Points	Due Date
Chapter 21 SmartBook	20	
Chapter 21 Assignment	10	
Evolution BioNow Video Activity	10	
Chapter 21 Quiz (proctored)	40	

Chapter 22- The Origin of Species

Assignment	Points	Due Date
Chapter 22 SmartBook	20	
Chapter 22 Animation	10	
Genetic Drift Data and Graphing Interactive	10	
Chapter 22 Quiz (proctored)	40	

Chapter 23- Systematics, Phylogenies, and Comparative Biology

Assignment	Points	Due Date
Chapter 23 SmartBook	20	
Chapter 23 Assignment	10	
Chapter 23 Quiz (proctored)	40	

Module 1 Labs

Assignment	Points	Due Date
LAB- Evolution: Evidence Comparative Fossils	50	
LAB- Evolution: Molecular Evidence	50	

Module 1 Discussion Board.

Assignment	Points	Due Date
Module 1 Discussion Board	15	

Module 1 Exam

Assignment	Points	Due Date
Module 1 Exam: Evolution	100	

MODULE 1 TOTAL POSSIBLE POINTS- 565

Module 2- Viruses, Prokaryotes, Protists, and Fungi

Chapter 26- Viruses

Assignment	Points	Due Date
Chapter 26 SmartBook	20	
Chapter 26 Assignment	10	
Chapter 26 Animations	10	
COVID-19: The Rise of a Global Pandemic Relevancy Module	10	
Chapter 26 Quiz (proctored)	40	

Chapter 27- Prokaryotes

Assignment	Points	Due Date
Chapter 27 SmartBook	20	
Chapter 27 Assignment	10	
Chapter 27 Animations	10	
Chapter 27 Quiz (proctored)	40	

Chapter 28- Protists

Assignment	Points	Due Date
Chapter 28 SmartBook	20	
Chapter 28 Assignment	10	
Chapter 28 Animations	10	
Chapter 28 Quiz (proctored)	40	

Chapter 31- Fungi

Assignment	Points	Due Date
Chapter 31 SmartBook	20	
Chapter 31 Assignment	10	
Chapter 31 Quiz (proctored)	40	

Module 2 Labs

Assignment	Points	Due Date
Lab: Diversity of Microorganisms	50	
Lab: Diversity of Protists	50	
Lab: Diversity of Fungi	50	

Module 2 Discussion Board

Assignment	Points	Due Date
Module 2 Discussion Board	15	

Module 2 Exam

Assignment	Points	Due Date
Module 2 Exam: Viruses, Prokaryotes, Protists, and Fungi	100	

MODULE 2 TOTAL POSSIBLE POINTS- 605

Module 3- Seedless and Seeded Plants

Chapter 29- Seedless Plants

Assignment	Points	Due Date
Chapter 29 SmartBook	20	
Chapter 29 Assignment	10	
Chapter 29 Quiz (proctored)	40	

Chapter 30- Seed Plants

Assignment	Points	Due Date
Chapter 30 SmartBook	20	
Chapter 30 Assignment	10	
Chapter 30 Quiz (proctored)	40	

Chapter 35- Plant Form

Assignment	Points	Due Date
Chapter 35 SmartBook	20	
Chapter 35 Assignment	10	
Chapter 35 Quiz (proctored)	40	

Chapter 39- Plant Sensory System

Assignment	Points	Due Date
Chapter 39 SmartBook	20	
Chapter 39 Assignment	10	
Chapter 39 Quiz (proctored)	40	

Module 3 Labs

Assignment	Points	Due Date
Lab: Plants- Transpiration	50	
Lab: Plants- Gymnosperms	50	
Lab: Plants- Angiosperm Reproduction	50	
Lab: Plants- Gravitropism and Phototropism	50	

Module 3 Discussion Board

Assignment	Points	Due Date
Module 3 Discussion Board	15	

Module 3 Exam

Assignment	Points	Due Date
Module 3 Exam: Seedless and Seeded Plants	100	

MODULE 3 TOTAL POSSIBLE POINTS- 615

Course Project

Assignment	Points	Due Date
Biology 151- Course Project	100	

Module 4- Invertebrates and Vertebrates

Chapter 32- Animal Diversity and Evolution of the Body Plans

Assignment	Points	Due Date
Chapter 32 SmartBook	20	
Chapter 32 Assignment	10	
Phylogenetic Tree of Life Data and Graphing Interactive	10	
Chapter 32 Quiz (proctored)	40	

Chapter 33- Protostomes

Assignment	Points	Due Date
Chapter 33 SmartBook	20	
Chapter 33 Assignment	10	
Chapter 33 Quiz (proctored)	40	

Chapter 34- Deuterostomes

Assignment	Points	Due Date
Chapter 34 SmartBook	20	
Chapter 34 Assignment	10	
Chapter 34 Quiz (proctored)	40	

Module 4 Labs

Assignment	Points	Due Date
Lab: Dissection - Dissection Tutorial for Animals and Plants	10	
Lab: Dissection (Invertebrate) - Mussel	50	
Lab: Dissection (Invertebrate) - Sea Star	50	
Lab: Dissection (Invertebrate) - Earthworm	50	
Lab: Dissection (Invertebrate)- Crawfish	50	
Lab: Dissection (Vertebrate)- Perch	50	
Lab: Dissection (Vertebrate)- Frog	50	

Module 4 Discussion Board

Assignment	Points	Due Date
Module 4 Discussion Board	15	

Module 3 Exam

Assignment	Points	Due Date
Module 4 Exam: Invertebrates and Vertebrates	100	

MODULE 4 TOTAL POSSIBLE POINTS- 660

Module 5- Behavior and Ecology

Chapter 53- Behavioral Biology

Assignment	Points	Due Date
Chapter 53 SmartBook	20	
Chapter 53 Assignment	10	
Chapter 53 Quiz (proctored)	40	

Chapter 54- Ecology of Individuals and Populations

Assignment	Points	Due Date
Chapter 54 SmartBook	20	
Chapter 54 Assignment	10	
Growth Rate and Population Data and Graphing Interactive	10	
Exponential vs. Logistic Growth Data and Graphing Interactive	10	
Human Population Growth Data and Graphing Interactive	10	
Survivorship Data and Graphing Interactive	10	
Chapter 54 Quiz (proctored)	40	

Chapter 55- Community Ecology

Assignment	Points	Due Date
Chapter 55 SmartBook	20	
Chapter 55 Assignment	10	
Predator-Prey Relationship Data and Graphing Interactive	10	
Chapter 55 Quiz (proctored)	40	

Chapter 56- Dynamics of Ecosystems

Assignment	Points	Due Date
Chapter 56 SmartBook	20	
Chapter 56 Assignment	10	
Island Biogeography Data and Graphing Interactive	10	
Chapter 56 Quiz (proctored)	40	

Chapter 57- The Biosphere and Human Impacts

Assignment	Points	Due Date
Chapter 57 SmartBook	20	
Chapter 57 Assignment	10	
Biomes Data and Graphing Interactive	10	
Habitat Distributions Data and Graphing Interactive	10	
Ecological Pyramids Data and Graphing Interactive	10	
Ocean Acidification and Oyster Production Data and Graphing Interactive	10	
Carbon Dioxide and Temperature Data and Graphing Interactive	10	
Atmospheric CO2 Data and Graphing Interactive	10	
Temperature Anomalies Data and Graphing Interactive	10	
Fossil Fuels, Emissions, and CO2 Data and Graphing Interactive	10	
Climate Change Relevancy Module	10	
Chapter 57 Quiz (proctored)	40	

Chapter 58- Conservation Biology

Assignment	Points	Due Date
Chapter 58 SmartBook	20	
Chapter 58 Assignment	10	
Chapter 58 Animation	10	
Biomagnification Data and Graphing Interactive	10	
Chapter 58 Quiz (proctored)	40	

Module 5 Labs

Assignment	Points	Due Date
Lab: Population Biology - Growth and Competition	50	
Lab: Sampling Ecosystems- Biological Sampling	50	
Lab: Sampling Ecosystems- Comparing Ecosystems	50	

Module 5 Discussion Board

Assignment	Points	Due Date
Module 5 Discussion Board	15	

Module 5 Exam

Assignment	Points	Due Date
Module 5 Exam: Behavior and Ecology	100	

MODULE 5 TOTAL POSSIBLE POINTS- 885