



Course Prefix/Number/Title: BIOL 111 Concepts of Biology

Number of Credits: 4

Course Description: Concepts of Biology is an introductory level non-majors transferable class. It is designed to meet the requirements of a Lab Science.

Pre-/Co-requisites: None

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

1. Basic science literacy, possibly including superficial coverage of cell biology, ecology, human anatomy and physiology, evolution, genetics, and environmental biology.
2. Understanding how science informs cultural perspectives.
3. Understanding the relationship among levels of biological information.
4. Understanding the unity and diversity of life forms.
5. Comprehending methods of inquiry and technology and the applications for society.
6. Integrating knowledge and ideas in science.
7. Understanding and utilizing scientific knowledge.

Instructor: Chad Chapman

Office: NSC 113

Office Hours: MW 11:00-12:00pm

Phone: 559-540-5978

Email: chad.chapman@dakotacollege.edu

Lecture/Lab Schedule: Lecture: MWF from 10:00am-10:50am; Location: NSC Room #125

Lab: T 10:00 AM- 11:50 AM; Location: NSC 126

Textbook(s): Scientific American Biology for a Changing World. Schuster et al. 3rd Ed. ISBN 9781319050573.

Printed Lab Manual.

Course lecture slides may be available on the course page. If you would like to print them off that will be your responsibility to do so prior to class. All laboratory information will be printed in the form of handout or be available on Blackboard that you will keep and turn in.

Course Requirements:

Grading:

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

*Please do not request rounding of grades or grade changes. If there are extra points available in the course you will be notified.

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

Requirements	Points each	Total
4 Exams (Includes non-cumulative final)	100	400
14 Labs/Participation	10	140
16 Chapter Assignments	10	160
9 Quizzes	10	90
Lab Presentation	100	100
Total		890

Tentative Course Outline:

Wk.1: 1/10-1/12

W- Introductions/Syllabus

F- Ch.3- Cell Structure and Function

Wk. 2: 1/17-1/19

W- Quiz/Ch.4- How Cells Obtain Energy

T- Scientific method/Microscope lab

F- Return Quiz/Ch.4

Wk. 3: 1/22-1/26

M-Quiz/Ch.5- Photosynthesis

T- Photosynthetic Leaf Disc Flotation lab

W- Ch. 5

F- Return Quiz/Intro Ch. 6- Cellular Reproduction

Wk. 4: 1/29-2/2

M- Quiz/Ch.6

T- Observing Mitosis lab

W-Ch.6

F- Return Quiz/Exam Review

Wk. 5: 2/5-2/9

M- **Exam 1**

T- Human Cheek Cell DNA Extraction

W- Ch. 7- Cellular Inheritance

F- Ch.7

Wk. 6: 2/12-2/16

M- Quiz/Ch.9- Molecular Biology

T- Crime Scene and Suspect DNA Simulation lab

W- Ch.9

F- Return Quiz/Intro Ch.10- Biotechnology

Wk. 7: 2/21-2/23

W- Ch.10

F- Ch.10/Intro Ch.11- Evolution

Wk. 8: 2/26-3/1

M- Ch.11

T- Darwin Beak Activity

W- Ch.11

F- Exam Review

SPRING BREAK: MARCH 4-10

Wk. 9: 3/11-3/15

M- **Exam 2**

T- Diversity of Life Research Lab

W- Ch.12- Diversity of Life

F- Ch.12

Wk. 10: 3/18-3/22

M- Quiz/Exam Review

T- Diversity of Life Presentations

W- Ch.13- Microbes, Fungi, and Protists

F- Ch. 13

Wk. 11: 3/25-3/27

M- Quiz/Plant Videos

T- Trip to the Greenhouse

W- Ch.15- Diversity of Animals

Wk. 12: 4/3-4/5

T- Introduce/Work on Organism Presentation

W- Ch.15

F-Ch.15

Wk. 13: 4/8-4/12

M- Quiz/Ch.16- The Body Systems

T- Work on Organism Presentation

W- Ch.16

F- Exam Review

Wk. 14: 4/15-4/19

M- **Exam 3**

T- Work on Organism Presentation

W- Ch.18- Animal Reproduction/Development

F- Ch.18

Wk. 15: 4/22-4/26

M- Quiz/Ch.19- Population Ecology

T- Organism Presentations

W- Ch.19/Ch.20- Ecosystems

F- Return Quiz/Ch.20

Wk. 16: 4/29-5/3

M- Quiz/Ch.21- Conservation

T- Organism Presentations

W- Ch. 21

F- Return Quizzes/Exam Review

Wk. 17: 5/6-5/10

Final

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

Learning Outcome 1: Applies scientific methods of inquiry.

Performance Indicator 1: Utilizes the scientific process to solve problems.

Relationship to Campus Focus:

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 both lecture and lab.
- Any lecture printout you want will need to be printed from Blackboard prior to the start of class.
- Late assignments are not accepted. Please check Blackboard often and make note of dates presented in class.
- Lab Handout/Report Turn In: All lab folders/binders remain in the lab and should be complete prior to leaving. 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 were not present for lab one week you are not eligible to turn in a handout or 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.
- 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 advance 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.

- Missing an exam: If you know you will be gone during an exam day you need to let me know THREE days in advance. If you miss an exam and I am not aware that you were going to miss it prior, 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. All other makeup exams typically are in a different format and generally harder than the original.

Blackboard policy:

You are responsible for checking blackboard and doing coursework on blackboard for this class unless otherwise completed in 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. Late assignments will not be accepted so plan accordingly and complete early if necessary.

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. If you are seen using any electronic device during an exam or quiz you will automatically receive a ZERO and be asked to turn over your exam.

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.

If you choose 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 of Academic and Student Affairs. If there is a second offense the student will receive an “F” for the course.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

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 or 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.