

Syllabus Spring 2023

Jan. 9- May 5

I. Course Information

Course Title: Integrated Principles of Biology I

Course No. and Section: BSC2010 Sec 01

Instructor Name: Prof. E. Amesbury

Credit Hours: 3

Course Location: Bldg 2 Room 114

Meeting Dates: Tues./Thurs. 9:30-10:45

Office Location: Bldg 2 Room 218E

Office Hours: Thurs. 2:00-5:30

Flexible hours available by appointment

Telephone No.: 352-873-5800 ext. 1626

Canvas messaging: for quicker response

E-mail: amesbure@cf.edu

Extended Emergency Closure

“For emergency campus closings (natural disasters, etc.) call 352-291-4499 or 800-831-9244 or check our [website](#) (CF.edu).”

II. Course Description

You will be learning the basic principles of general biology as they relate to the cellular, organismic and population levels of organization. These principles include cell ultrastructure and function, energy transfer, reproduction, and genetics. General topics to be considered include the chemical, molecular and cellular basis of life, photosynthesis, cell metabolism, and cell division. This course will establish a scientific vocabulary that is used by scientists and health care professionals

Recommended Pre/Corequisites: Chemistry I, II

Required Text Title: Openstax “Biology”

Website:

<https://openstax.org/details/books/biology-2e>

[Downloadable Textbook PDF \(Free\)](#)

Edition: 2nd Edition

ISBN No.: Free to download

Optional Materials: Laptop (highly recommended), Cell phone

III. General Information

Assignments/Grades

All assignments must be submitted by the posted deadline date and time (see detailed explanation below for make-ups). Once you begin your online Quizzes or Exams, the allotted time will begin and you will not be permitted to “save” your progress to resume later. This means that you should not begin until you are prepared to complete them in their entirety.

Assignment	Points Earned	Weight
Tests (4)	100-120 each Test	30%
Open-Note Quizzes and Assignments (variable)	50-100	35% each (70% total)

Grade	Percentage
A	100-90.00
B+	89.99-87.00
B	86.99-80.00
C+	79.99-77.00
C	76.99-70.00
D	69.99-60.00
F	59.99-0

Course Delivery

- This is a **live in-class course**, with **the option to view the lectures through Zoom**.
 - Lectures will also be recorded for you to review at a later date, or to use as a study tool.
 - The course materials and assignments will be listed on Canvas (<https://cf.instructure.com>), and it is the student's responsibility to ensure sufficient internet access to obtain the course materials, complete course assignments, and submit before the deadline.
- ALL assignments must be submitted before the due date and time:
 - ANY assignments submitted after the due date and time, no matter how late, will receive a 0.
 - Course work CANNOT be made up.
 - Lack of internet access and/or individual computer problems WILL NOT be considered valid excuses, and failure to submit the assignment on time will result in a 0.
- Students are expected to check Canvas at least once each weekday (Monday through Friday) to ensure that they do not miss any announcements or emails from the instructor.
- Grades will be viewable in Canvas at all times. It is the student's responsibility to know the college drop date and drop by this date if necessary. A grade of "W" (withdrawal) will be recorded only if the student drops the course by the college drop date.

NOTE: It is recommended that students do not travel or take vacations during this course. However, if a student chooses to do this, they must ensure that they have reliable wifi and computer access. They will be expected to complete all assignments as scheduled.

Make-Up Policy

- Assignments are due by the date and time deadline.** Failure to follow the prescribed procedures will result in a grade of zero for that assignment.
- Some extenuating circumstances, under the professor's discretion, may be considered to change the deadline. A written letter of explanation, requesting that the absence from the assignment be

excused, and deadline extended, must be presented before the assignment or **within 24 hours afterwards.**

These are the extenuating circumstances that will be considered:

- The student is hospitalized and/or has been advised by a licensed medical practitioner or hospital not to complete the assignment.
- There is a documented death of an immediate family member
- The assignment due date falls on a religious holiday. Notification must be received before the deadline.

3. An ongoing physical illness that may be used to excuse a student will have to be provided with documentation **AT THE BEGINNING OF THE SEMESTER**

Attendance Policy

1. This course is being taught simultaneously in the classroom and through Zoom.
 - Attendance for lessons (only) is not mandatory.
 - Students must be present to take exams.
 - Lessons will be recorded and uploaded in Modules to view or review at your convenience.
2. A student's overall success is based upon following the course schedule for learning the assigned readings and practicing the recommended exercises. Students are strongly encouraged to develop self-discipline to complete all text readings and online exercises, including the practice examinations.

Academic Integrity

Academic dishonesty includes the following:

- Cheating - copying another's work for academic gain.
- Plagiarism - representing another's work as your own.
- Bribery - offering, giving, soliciting, or receiving goods or services of value for academic gain.
- Misrepresentation - altering facts (e.g., signing an absent classmate's name to an attendance sheet).
- Conspiracy - planning with others to commit academic dishonesty.
- Fabrication - making up information to avoid punishment or other difficulty.
- ***If any student participates in any form of academic dishonesty will automatically result in a 0 (F)***

IV. Course Schedule/Outline

THERE ARE NO MAKE-UP ASSIGNMENTS, QUIZZES, OR TESTS

<u>Week of:</u>	<u>Unit 1. The Chemistry of Life</u>
Jan. 10	Chapter 1: These portions only- Hierarchy of Life and Scientific Method Chapter 2: The Chemical Foundation of Life
Jan. 17	Chapter 3: Biological Macromolecules
Jan. 19	<u>Unit 2. The Cell</u> Chapter 4: Cell Structure
Jan. 24	Chapter 5: Structure and Function of Plasma Membrane
Jan. 31	Test 1 Chapters 1-5: Feb. 2
Feb. 7	Chapter 6: Metabolism
Feb. 14 (No Class on Tues.) Feb. 16	Chapter 7: Cellular Respiration
Feb. 21	Chapter 8: Photosynthesis
Feb. 28 March 7	Chapter 9: Cell Communication Test 2 Chapters 6-9: March 9
March 14	Spring Break
March 21	Chapter 10: Cell Reproduction (Mitosis) <u>Unit 3. Genetics</u> Chapter 11: Meiosis and Sexual Reproduction
March 28	Chapter 12: Mendel's Experiments and Heredity
April 4	Chapter 13: Modern Understandings of Inheritance
April 11	Test 3 Chapters 10-13: April 13 Chapter 14: DNA Structure and Function
April 18	Chapter 15: Genes and Proteins
April 25	Chapter 16: Gene Expression
Final Exam Week	Test 4 Chapters 14-16: May 4

STATEMENT: Due to unforeseen happenings, it may be necessary for the course assignment schedule to be altered. The instructor will always strive to be fair about any changes.

Student Learning Outcomes/Course Objectives

Learning Outcomes & How Measured

Critical Reasoning: The student will reflect, analyze, synthesize, and apply critical thinking.

1. Accurately interpret evidence, statements, graphics, questions, etc. (quiz, test)
2. Draw valid conclusions. (quiz, test)
3. Justify and explain assumptions and reasons. (discussion, quiz, test)

Communication: The student will read, write, speak, and listen effectively.

1. Read materials and effectively understand essential facts and concepts. (quiz, test, class assignments)
2. Listen actively to comprehend main ideas and essential details. (quiz, test, class assignments)
3. Express clear, well-organized ideas through oral communication. (discussion)

Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods.

1. Interpret and communicate understanding of visual representations of data. (quiz, test)
2. Demonstrate mathematical number sense and unit sense. (quiz, test, class assignments)

Global Socio-Cultural Responsibility: The student will be an informed and responsible citizen in social, cultural, and global matters.

1. Identify scientific principles underlying human influence upon the Earth and its inhabitants. (quiz, test, class assignments)

Computer & Information Skills: The student will be able to evaluate the importance of technology and its applications.

1. Organize data or information using appropriate electronic media. (class assignment)
2. Access, research, and retrieve information using the Internet. (class assignment)

In our DNA