# Valencia College – General Biology I - BSC 1010C

# CRN 20860

## Spring 2022 Course Syllabus

Credit hours: 4

Contact hours: 6 (3 lecture, 3 Laboratory)

Instructor: Professor Ahmed

Phone: 407-582-1407

Email: mahmed20@valenciacollege.edu

Office hours: Canvas inbox

Meeting times: Lecture: online

Lab: online

Lecture Textbook: Required: Please choose ONE of the following Textbook ISBN choices.

Campbell Biology Vol 1 Code W/Text (18 Mo Access) 12th Edition. ISBN 9780137351824

Campbell Biology Vol 1 Text W/Mastering 12th Edition. ISBN 9780137351916

Graphical user interface

Description automatically generated

Lab Manual: Required: Purchase lab access.

McGraw-Hill, (2021) Connect Access Code Biology Virtual Labs.

ISBN: 9781264349739

**Respondus Lockdown Browser will be required for all exams and quizzes in the course**

Course Description: Introduction to fundamental biological principles emphasizing common attributes of all living organisms. Unifying concepts include chemical structure of living matter, structure and function of the cell, specialized cells, major metabolic functions, control systems, reproduction, genetics, evolution and ecology. It is **prerequisite for advanced biology courses**.

Specific Course Goals: To understand and apply the basic principles and concepts of modern-day biology. Develop critical thinking skills necessary to communicate biological concepts with accuracy and detail.

Special Accommodations: Students with disabilities who qualify for academic accommodations must provide a letter from the Office of Students with Disabilities (OSD) and discuss specific needs with the professor during the first week of classes. The Office of Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523).

Academic Honesty: All work submitted by students is expected to be the result of individual effort. Any student caught cheating on an exam, copying homework or plagiarizing – *using someone else’s words or thoughts without giving credit* – will be treated according to Valencia’s policy on academic honesty. Engaging in acts of academic dishonesty will result in penalties ranging from a zero grade on the assignment, quiz, lecture test, to failure of the course and expulsion from the college.

Classroom Conduct: Valencia is dedicated not only to the advancement of knowledge and learning but also to the development of responsible personal and social conduct. As a registered student, you assume the responsibility for conducting yourself in a manner that contributes positively to Valencia’s learning community and that does not impair, interfere with, or obstruct the orderly conduct, processes, and functions of the college as described in the [Student Code of Conduct.](https://valenciacollege.edu/about/general-counsel/policy/documents/Volume8/8-03-Student-Code-of-Conduct.pdf)

Attendance: This is an online course, available 24/7, managed through Canvas. You must have access to the Internet (available on all Valencia campuses) to complete the course requirements. Your online attendance will be checked each week based on your participation in the course and submission of coursework. In the event of an extended absence, you should contact me via email or phone as soon as possible to indicate the reason. If you do not access the course website or contact me letting me know of your absence for a period of seven consecutive days, you will be contacted and if there is no communication within 48 hours, you will be withdrawn from the course up until the withdraw deadline. After the withdraw deadline, students with an absence of more than 7 days will receive the final grade that is earned according to the course grading policy.

Withdrawal:Per Valencia Policy 4-07 a student who withdraws from class before the *withdrawal deadline March 25, 2022,* will receive a grade of “W.” It is the responsibility of students to withdraw themselves before the withdrawal deadline. A student is not permitted to withdraw from this class after the withdrawal deadline; if you remain in the class after the withdrawal deadline, you can only receive a grade of A, B, C, D, F. Any student who withdraws from a class during a third or subsequent attempt in the same course will be assigned a grade of “F.”

Withdrawal/Drop: January 18, 2022, is the Drop/100% Refund deadline

March 25, 2022, is the withdrawal deadline for a W “grade”

## Valencia Student Core Competencies:

**Think**: clearly, critically and creatively, analyze, synthesize, integrate and evaluate (lectures and examinations).

**Value**: make reasoned value judgments and responsible commitments (laboratory classes).

**Communicate**: with different audiences and using varied means (group work, written assignments and lab reports).

**Act**: purposefully, reflectively and responsibly (laboratory classes).

Course Evaluation : Lecture Tests--——————————————————————--250 pts.

Quizzes ————————————————————————— 120 pts.

Mastering Biology HW ———————————————————160 pts.

Scientific Paper————————————————-——————15 pts.

Lab Exams———————————————————————— 80 pts.

Lab Reports ———————————————————————--120 pts.

Learning Activities————————————————————---110 pts.

Learning Outcomes HW———————————————————150 pts.

Lecture Final Exam—————————————————————100 pts.

Required Attendance Activities—————————————---——----5 pts.

Discussions———————————————————————--—10 pts

**TOTAL POINTS POSSIBLE** …………………...….……….………...1120 pts.

Grade Calculation Formula: Add the total number of points from all your tests, quizzes, etc. and then divide by 1125 cumulative points in the course. Refer to grading scale below.

Grading Scale: A = 90% – 100% D = 60% – 69.9%

B = 80% – 89.9% F = 0% – 59.9%

C = 70% - 79.9%

## MAKE-UP POLICY\*:

* No makeups for Lecture Tests and Lecture Quizzes
* No makeups for Lab Exams, and Final Lecture Exam:

Full-score makeups are given ONLY if written documentation is provided to the professor.

In such a case you MUST contact the professor by email no later than the day of the test/quiz to notify the professor of your absence and your desire to makeup the test/quiz; otherwise, you forfeit your right to a makeup; and if for ANY reason you miss the scheduled makeup, you will not be given another makeup chance.

* Documentation = official written documentation of hospitalization, court summons, or police report.
* \*Exception: If you notify the professor **via email** during the FIRST week of classes that you will be missing class on a specific date due to an unavoidable emergency, I will allow you a “maximum point” makeup without documentation, for a lecture test/quiz should you be absent when a lecture test/quiz is given (**this does NOT apply for the Final lecture Exam**). **NOTE:** **Failure to take the Final Exam at the end of the semester will result in an “F” grade in the course.**
* *The Reading Assignments from Mastering Biology New Design* must be completed on time online on the designated due dates (check CANVAS). The Scientific Paper Assignment must be submitted by due date designated in Canvas. Five points will be deducted for each day late.

## Lecture Schedule

## Date Textbook Material/Assessments

Jan 10-Jan 15 Chapter 1: Study of Life

Jan 10-Jan 15 Chapter 2: The Chemical Context of Life

**Quiz #1 (ch. 1,2)** Jan 19

Jan 17-Jan 22 Chapter 3: Water and the Fitness of the Environment

Jan 17-Jan 22 Chapter 4: Carbon and the Molecular Diversity of Life

**Quiz #2 (ch. 3,4)** Jan 26

**Test #1 (ch.1, 2, 3, 4)** Feb 4

Jan 24-Jan 29 Chapter 5: The Structure and Function of Macromolecules

Jan 31-Feb 5 Chapter 6: A Tour of the Cell

**Quiz #3 (ch. 5,6)** Feb 9

Feb 7- Feb 12 Chapter 7: Membrane Structure and Function

**Test #2 (ch. 5, 6, 7)** Feb 18

Feb 14-Feb 19 Chapter 8: An Introduction to Metabolism

Feb 21-Feb 26 Chapter 9: Cellular Respiration: Harvesting Chemical Energy

**Quiz #4 (ch. 8,9)** Mar 2

Feb 28-Mar 5 Chapter 10: Photosynthesis

**Test #3 (ch. 8, 9, 10)** Mar 18

Mar 14-Mar 19 Chapter 12: The Cell Cycle

**Quiz #5 (ch. 12)** Mar 23

Mar 21-Mar 26 Chapter 13: Meiosis and Sexual Life Cycles

**Test #4 (ch. 12, 13)** April 1

Mar 28-Apr 1 Chapter 16: The Molecular Basis of Inheritance

Apr 4-Apr 9 Chapter 17: From Gene to Protein

**Quiz #6 (ch. 16)** Apr 6

**Test #5 (ch. 16, 17)** Apr 15

Apr 11-Apr 16 Chapter 14: Mendel and the Gene Idea

Apr 18-Apr 23 Chapter 15: The Chromosomal Basis of Inheritance

**Final Exam (comprehensive):** Monday April 25, 2022

## To Access the Lecture Power Points (Textbook Chapters)

1. From the Valencia home page, click “Faculty and Staff”

2. Under Faculty Resources, click “Faculty Websites”

3. Click “Faculty Front Door Only”

4. Click “Ahmed”

5. Click “Course Materials”

6. Under Course Materials click on Content, then follow the appropriate links

## Lab Schedule

| **Week of:** | **Experiments** |
| --- | --- |
| January 10 | Lab Safety |
| January 10 | Applying the Scientific Method |
| January 17 | Microscopy |
| January 24 | Osmosis: Movement of Water Across a Selectively Permeable Membrane |
| January 31 | Osmosis: Tonicity in Red Blood Cells |
| February 7 | Diffusion Across a Selectively Permeable Membrane |
| February 14 | Diffusion: Effect of Concentration on Rate of Diffusion in Semi-Solid |
| February 21 | Lab Mid-term Exam Feb 23 |
| February 28 | Enzymes |
| Mar 14 | Cell Respiration |
| Mar 21 | Photosynthesis: Carbon Dioxide Up-Take |
| Mar 21 | Photosynthesis: Photosynthetic Pigments |
| Mar 28 | Human Genetics: Chromosomal Inheritance |
| April 4 | Mendel Genetics: Monohybrid Cross |
| April 4 | Mendel Genetics: Dihybrid Cross |
| April 11 | Human Genetics: Genetic Inheritance |
| April 18 | Lab Final Exam Apr 20 |

## Tips to Help You Do Well in this Course

- Be absolutely serious and dedicated.

- Come to EVERY laboratory meeting; and come prepared.

- See the instructor whenever you have questions/concerns.

- Study the material presented online/laboratory.

- Don’t cram for tests. Ideally, you should study the material at least 2 or 3 times before taking the test.

- Study hard first by yourself, then when you feel that you could take the test and do reasonably well, study with one or two other classmates who have also studied hard.

-Record all of your grades in the table on this syllabus

\*Disclaimer:Changes in the course syllabus and grading policy may be made at any time during the term at the discretion of the professor.

## BSC 1010C – Biology Spring 2022

| Graded Assignments | YOUR  POINTS | TOTAL POINTS POSSIBLE |
| --- | --- | --- |
| LECTURE TEST #1 |  | 50 |
| LECTURE TEST #2 |  | 50 |
| LECTURE TEST #3 |  | 50 |
| LECTURE TEST #4 |  | 50 |
| LECTURE TEST #5 |  | 50 |
| LECTURE FINAL EXAM |  | 100 |
| LECTURE QUIZ #1 |  | 20 |
| LECTURE QUIZ #2 |  | 20 |
| LECTURE QUIZ #3 |  | 20 |
| LECTURE QUIZ #4 |  | 20 |
| LECTURE QUIZ #5 |  | 20 |
| LECTURE QUIZ #6 |  | 20 |
| Midterm LAB EXAM |  | 40 |
| Final LAB EXAM |  | 40 |
| LAB REPORT #’s:  1 2 3 4 5 6 7 8 9 10  11 12 13 14 15 |  | 120 |
| Scientific Paper Assignment |  | 15 |
| Mastering Biology New Design  Reading Assignments |  | 160 |
| Required Attendance Activity |  | 5 |
| Learning Outcome HW |  | 150 |
| Learning Activities |  | 110 |
| Discussions |  | 10 |
| TOTAL POINTS |  | 1120 |