General Biology 1 Syllabus

(CRN #28201)

Valencia College BSC 1010C Spring 2023

# Instructor information

|  |  |  |  |
| --- | --- | --- | --- |
| Instructor: | Email: | Phone: | Office hours: |
| Brooke Burnett | Bburnett9@valenciacollege.edu | 321-297-0395 | Zoom link: https://valenciacollege.zoom.us/j/3560358655 |

# General information

## 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. Prerequisite for advanced biology courses. Students should be prepared to complete college level reading, writing, and mathematics assignments as part of this course. This course meets the General Education science requirements for graduation.
* Prerequisites: Satisfactory completion of all mandated courses in reading, mathematics, English, and English for Academic Purposes
* Modality: mixed-mode (online lecture/in-person lab)
* Length of term: TWK
* Credit hours: 4
* Lab meeting/location: Tuesdays 7am-9:45am (East Campus, building 8 room 212)

## Course learning outcomes

1. Students will apply scientific reasoning to solve problems.
2. Students will explain Darwinian evolution.
3. Students will describe the chemical basis of life.
4. Students will describe cellular structures and functions.
5. Students will examine the structures and functions of cell membranes.
6. Students will explain the processes of energy transformation as they relate to cellular metabolism.
7. Students will evaluate the effects of cellular reproduction.
8. Students will examine eukaryotic inheritance.
9. Students will describe the molecular mechanism of gene expression and DNA replication.
10. Students will apply the scientific method to biological investigations.

# Course materials

## Required materials

* Phone/tablet/computer with internet access
* Microsoft word or google docs
* Appropriate clothes for lab (pants that cover entire leg, shirts must cover abdomen, closed toed shoes)

## Required text

##### Modified Mastering Biology with Pearson eText -- Access Card -- for Campbell Biology

###### **Urry, LISA; CAIN, MICHAEL; WASSERMAN, STEVEN; MINORSKY, PETER; ORR, Rebecca**

###### **12th EDITION**

###### **9780135855836**

<https://valenciacollege.textbookx.com/institutional/index.php?action=browse#books/3759626/>

(The textbook will be a resource for you during this course, you do not need to buy the most recent edition, please feel free to search elsewhere for a cheaper option.)

# Course schedule

| Week | Topic | Exercises | Due date |
| --- | --- | --- | --- |
| Week 1  2/13-2/19 | Chemical basis of life: atoms, molecules, and water  Lab: Lab safety/Measurement | Worksheet 1 | 2/19 |
| Week 2  2/20-2/26 | Chemical basis of life: Organic molecules  Lab: General principles of chemistry/Chemical composition of cells | Worksheet 2 | 2/26 |
| Week 3  2/27-3/05 | Features of cells, membrane structure and transport  Lab: Microscope and cell observation | Worksheet 3 | 3/05 |
| Week 4  3/06-3/12 | Energy, enzymes and metabolism  Lab: Membranes and molecule transport | Worksheet 4 | 3/12 |
| Week 5  3/13-3/19 | Spring break ☺ |  |  |
| Week 6  3/20-3/26 | Cellular respiration, fermentation, and photosynthesis  Lab: Enzymes | Worksheet 5 | 3/26 |
| Week 7  3/27-4/02 | DNA replication and mutations  Lab: Cellular respiration and photosynthesis | Worksheet 6 | 4/02 |
| Week 8  4/03-4/09 | Gene expression: translation and transcription (Donut story)  Lab: no lab, Donut story activity | Worksheet 7 | 4/09 |
| Week 9  4/10-4/16 | Cell cycle, Mitosis  Lab: Gene mutation part I | Worksheet 8 | 4/16 |
| Week 10  4/17-4/23 | Meiosis and genetics  Lab: Mitosis and gene mutation part II | Worksheet 9 | 4/23 |
| Final week  4/24-4/30 | Final exam  Lab: Final practical |  |  |

# Exam schedule

| Date | Subject |
| --- | --- |
| 02/24/23-02/26/23 | Exam 1: covers material from weeks 1 & 2 |
| 03/10/23-03/12/23 | Exam 2: covers material from weeks 3 & 4 |
| 04/07/23-04/09/23 | Exam 3: covers material from weeks 6,7, 8 |
| 04/24/23-04/28/23 | Final exam: covers material from weeks 9 & 10 |
|  |  |

# Course policies

## Communication policy

Contact me through email or phone, I will respond to communications within 24 hours during the work week and between 24-48 hours on the weekends.

## Classroom policy

Since we are only meeting for labs, we will discuss proper lab behavior and etiquette during our first lab.

## Make-up and points recovery policy

This course is about understanding the fundamental ideas in biology. You are encouraged to redo some assignments to help with the understanding of concepts and terms. Making up an assignment may improve your grade (you may redeem up to 85% of points) and must be completed within one week of receiving your graded assignment. If you are struggling to keep up with the work load, **please reach out to me** so we can discuss your current study habits and ways to improve your time management.

## Plagarism policy

Plagiarism is a serious offence and will result in the grade of 0 for the first offence and F for the course for the second offence. At any point, for any assignment, you are not to use someone else’s work and represent it as your own; this includes copying and pasting definitions or any other materials from the internet or any other sources. Plagiarism is defined as claiming as your own a paper, report, article, or speech which in whole or in part was prepared by someone other than you.

## Final Exam policiy

The final exam will not be cumulative, it will contain questions about the material from weeks 9 and 10.

## Late Work policiy

Late work will be accepted with a 10% grade deduction per day. If you cannot complete an assignment within the allotted time **please reach out to me**. I understand that life is busy and things come up, I believe everyone should have the chance to thoroughly work through assignments. As opposed to rushing to finish an assignment and losing the value and knowledge you were supposed to gain by diligently completing the work.

## Tardiness policy

Please be prompt. Arriving to lab after the initial 20-30 minutes could mean that you missed important information regarding the lab activities and therefore will not be able to participate that day. If you know you are going to be late to lab, **please reach out to me.**

## Attendance policy

Students are required to attend all labs. Students are allowed only two unexcused absences for labs. If you know you are not going to be able to attend a lab, **please reach out to me.**

## No show policy

Class attendance is required for online classes; students who are not actively participating in an online class and/or do not submit the required attendance activity or assignment by the scheduled due date must be withdrawn by the instructor at the end of the first week as a "no show". If you are withdrawn as a “no show” you will be financially responsible for the class and a final grade of “WN” will appear on your transcript for the course.”

## Withdrawal policy

A student who withdraws from class before the **withdrawal deadline of 04/07/23** will receive a grade of “W”. A faculty member is permitted to withdraw a student from the faculty member's class up to the beginning of the final exam period, for violation of the faculty member's attendance policy, as published in the faculty member's syllabus. 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 or I. An I grade will only be assigned under extraordinary circumstances that occur near the end of the semester. If you receive an I, the work missed must be made up during the following semester, at which time you will get an A, B, C, D or F. Failure to make up the work during the following semester will result in you getting a grade of F in the course. Any student who withdraws from this class during a third or subsequent attempt in this course will be assigned a grade of “F”.

## Grading Scale

|  |  |
| --- | --- |
| 90-100 | A |
| 80-90 | **B** |
| 70-80 | **C** |
| 60-70 | **D** |
| <60 | **F** |

**Grading breakdown:**

Exams = 50%

Lab exercises = 25%

Additional exercises = 25%

# Additional information

## Important dates

|  |  |
| --- | --- |
| Class start date | 02/13/23 |
| Drop/refund deadline | **02/20/23** |
| Spring break | **03/13/23 – 03/19/23** |
| Withdrawal deadline | **04/07/23** |
| Final exam week | **04/24/23 – 04/30/23** |
| Class end date | **04/30/23** |

## student code of conduct

This course follows Valencia Community College’s Code of Student Conduct Policy 8-03. Please [click here](https://valenciacollege.edu/about/general-counsel/policy/documents/volume8/8-03-student-code-of-conduct.pdf) to review student code of conduct.

## Course Compenticies

The course seeks to strengthen students’ skills applicable to Valencia’s Student Core Competencies: **THINK, VALUE, COMMUNICATE**, and **ACT**.

## Students with disabilities

Students with disabilities who qualify for academic accommodations must provide a notification from the Office for Students with Disabilities (OSD), building 4, on East Campus and discuss specific needs with the instructor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities.

## Student support

Valencia College is interested in making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. BayCare Behavioral Health Student Assistance Program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available.

## Living conditions

Any student who has difficulty accessing sufficient food to eat, or who lacks a safe and stable place to live, and believes this may affect his or her performance in the course, is urged to meet with a Counselor in the Advising Center for information about resources that may be available from the college or community.

## Security statement

We want to reassure you that our security officers are here around the clock to ensure the safety and security of the campus community. It is important to remain alert and aware of your surroundings, especially during the early morning or evening hours. Remember that you can always call security for an escort if you feel uncomfortable walking alone on campus. White security phones can also be found in many of our buildings; simply pick up the phone and security will answer. Finally, report any suspicious persons to East Campus Security at 407-582-2000, or by using the yellow emergency call boxes located on light poles in the parking lots and along walkways.

## Baycare student assistance Services

Valencia College strives to ensure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. BayCare Behavioral Health Student Assistance Program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. If needed, the counselor may refer the student to appropriate resources or to speak face-to-face with a licensed counselor.

**COLLEGE LINKS**

College Catalog: <http://valenciacollege.edu/catalog/>

Valencia Policy Manual: <http://valenciacollege.edu/generalcounsel/policy/>

Student Handbook: <http://valenciacollege.edu/pdf/studenthandbook.pdf>

Microsoft Office Instructions for free software: valenciacollege.edu/support/howto/documents/Valencia\_Office-ProPlus-Instructions.pdf

Course Support: onsite, online tutoring, writing help, etc.

<http://valenciacollege.edu/learning-support/>