IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Fall 2025**	Instructor Name:	**Fatima Villalobos**
Course Title & #:	**Principles of Biological Sciences – BIOL 100**	Email:	**fatima.villalobos@imperial.edu**
CRN #:	**10013**	Webpage (optional):	**N/A**
Classroom:	**2711**	Office #:	**2777**
Class Dates:	**8/11/25 – 12/06/25**	Office Hours:	**M, W 10:15am-11:15am online, AND T, Th 8:30am-9:30am in person/email/Pronto**
Class Days:	**Wed Lab**	Office Phone #:	**760.355.5743**
Class Times:	11:20am-2:30pm	Emergency Contact:	fatima.villalobos@imperial.edu or Admin. Assistant, Elvia: elvia.machado@imperial.edu
Units:	4	Class Format/Modality:	Hybrid

Course Description

A comprehensive one semester general biology course for non-majors. Includes life from the molecular to the organismic level of both plants and animals and their interactions within the environment. Special emphasis is put on human biology within appropriate areas of study. Appropriate for general education as well as nursing, pre-professional, and higher level biology courses. Includes laboratory component. (CSU) (UC credit limited. See a counselor.)

Course Prerequisite(s) and/or Corequisite(s)

Appropriate placement as defined by AB705; or MATH 098 or MATH 091 with a grade of "C" or better.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Demonstrate an understanding of the steps of the scientific method.

2. Demonstrate an understanding of the basis of evolution.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. identify the basic characteristics of all living things.
2. name basic chemical aspects that pertain to life and the concept of homeostasis.
3. describe the subcellular components of the cell including their structure and function.
4. explain the light and dark reactions of photosynthesis.
5. explain cellular respiration and its relations to the entire organism.
6. demonstrate knowledge of the structure and function of DNA and RNA.

7. explain protein synthesis and site the central dogma of cell biology.
8. compare and contrast the fundamentals of asexual and sexual reproduction.
9. define ecology and the overall impact of ecology to conditions in the environment.
10. solve problems in general genetics and in human genetics and relate advances in genetics to social responsibility of geneticists.
11. identify and relate the functions of the major systems of the human body; the interrelationship among body systems and nature of disease.
12. classify organisms in the kingdoms of plants and animals, discuss their evolutions and their relationships.

Textbooks & Other Resources or Links

1. Required Textbook:

We will use the **digitally free** and open educational resource (OER) provided by OpenStax:

OpenStax College. (updated 2023). *Concepts of Biology*. OpenStax College, Retrieved from:

https://openstax.org/details/books/concepts-biology

Your book is available in web view and PDF for free. (see Canvas for details). A print version of the text is also available at the IVC Bookstore.

2. Required Lab Manual:

BIOL 100 Imperial Valley College Lab Manual (Author: Mader). This is a custom Lab Manual for this class and is available for purchase at the IVC bookstore.

ISBN: 9781307871074

3. Required- goggles for dissection lab. These can be found at the IVC Bookstore, Harbor Freight, and other retailers.

Course Requirements and Instructional Methods

Students will be able to describe various cellular processes such as photosynthesis, aerobic cellular respiration, enzymatic reactions, mitosis, and meiosis. Students will acquire a general knowledge of genetics and how genetic information is passed to offspring. Students will learn about the origin of life on Earth and how organisms underwent adaptation and evolution to give rise to life as we know it today. Students will learn the functions of the major systems of the human body, and some ways that these systems work cooperatively to maintain critical life functions.

Exams: The course will include five non-cumulative exams covering concepts presented in lecture, text readings and labs. They may present in the form of multiple choice, true/false, fill in the blank, and/or short answer. There will be an opportunity to drop the lowest exam score, with the exception of the last one. **There**

are NO Make-Up exams except for extreme circumstances. If you have a valid, documented reason for missing an exam, it is your responsibility to tell me about it as soon as possible and provide valid documentation, otherwise you will not have the opportunity to make up for the exam and will be given a zero for that exam.

Lab assignments: There will be approximately 11 assigned labs throughout the semester. At the end of each lab your group will be responsible for submitting the completed lab worksheet(s) worth 20 points each. Only one group submission is required, but all members will write their name on the lab sheet. Lab groups cannot leave the lab until all members of the group have finished the experiments. Lab groups will have to show me the data from the lab and may be asked to explain the data before the lab group is allowed to leave the lab. Lab groups must thoroughly clean up after themselves, or else groups will be assigned to do clean up at the end of the next lab and a 10% deduction will be taken on that lab. Simulated laboratory experiments and concept exploration may occur through the use of Labster during class time. There will be an opportunity to drop 1 of the lowest lab scores before final grades are submitted.

Homework Assignments: There will be approximately ten homework assignments based on the lectures and chapter readings. Assignments will be posted on CANVAS under the Modules tab. Assignments will be posted on a Monday and will due by the end of the week, 11:59pm Sunday for the assigned weeks.

Discussions/Other Assignments: There will be approximately ten assigned Discussions/Related Assignments/Surveys throughout the semester. Discussions will require a well thought out and supported response to a specific question, as well as responses to classmates' posts that result in collaborative conversations. Discussion assignments will be posted on Monday with the initial post due on Wednesday and follow-up posts due Sunday.

Late penalty may apply for some assignments such as homework/discussions/labs.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

What if I need to borrow technology or access to WIFI?

1. To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: https://imperial.edu/students/student-equity-and-achievement/

2. If you'd like access the WIFI at the IVC campus, you can park in parking lots "I & J". Students must log into the IVC student WIFI by using their IVC email and password. The parking lots will be open Monday through Friday from 8:00 a.m. to 7:00 p.m.

Guidelines for using parking WIFI:

-Park in every other space (empty space BETWEEN vehicles)

-Must have facemask available

-For best reception park near buildings

-Only park at marked student spaces

-Only owners of a valid disabled placard may use disabled parking spaces

-Only members of the same household in each vehicle

-Occupants **MUST** remain in vehicles

-Restrooms and other on-campus services not available

-College campus safety will monitor the parking lot

-Student code of conduct and all other parking guidelines are in effect

-Please do not leave any trash behind

-No parking permit required

If you have any questions about using parking WIFI, please call Student Affairs at 760- 355-6455.

DATES TO REMEMBER: (please check Imperial Valley College Important Dates & Deadlines)

- **August 24, 2025:** Last day to drop WITHOUT "W"
- **September 1, 2025:** Holiday- Labor Day. No classes.
- **November 1, 20245(Saturday)**: Last day to drop WITH "W"
- **November 10, 2025:** Holiday- Veteran's Day. No classes.
- **November 24-28, 2025**: Holiday- Thanksgiving. No classes.

Course Grading Based on Course Objectives

Your course grade will be based on exams, lab assignments, discussions, reading assignments and research project/oral presentation. Anticipated points awarded toward the final grade include:

▪ 4 (5-1) Non-Cumulative Lecture Exams	(5-1) x 50 pts	=	200 pts
▪ 2 Lab Exams	2 x 50 pts	=	100 pts
▪ Labs	(12-1) x 20 pts	=	220 pts
▪ Discussions	8 x 10 pts	=	80 pts
▪ Homework Assignments	10 x 10 pts	=	100 pts
TOTAL			700 pts

Total possible points = 700 points. Calculating Grade Point; To calculate your grade, add all the points earned during the course, divide that value by total possible points, and multiply by 100. Example; if the total points that you earned is 590 points out of 700 possible points, your average grade for the course would be; (590/700) x 100 = 84% which equals the letter grade "B". Extra Credit **may** be awarded in the form of critical thinking questions or bonus questions **on exam.**

Grading scale: A ≥ 90 % B ≥ 80% C ≥ 70% D ≥ 60%

No exceptions.

IMPERIAL VALLEY COLLEGE

Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through ***DSPS***, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

Course Policies

Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

What does it mean to "attend" an online class?

Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computer-assisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is NOT adequate to demonstrate academic attendance by the student.

Online Netiquette

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) identify yourself, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

How am I expected to act in an online "classroom" (especially Zoom)?

Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips below for best results:

1) **Be RESPECTFUL**
    a. Your written, verbal, and non-verbal communications should be respectful and focused on the learning topics of the class.
2) **Find a QUIET LOCATION & SILENCE YOUR PHONE (if zooming)**
    a. People walking around and pets barking can be a distraction.
3) **EAT AT A DIFFERENT TIME.**
    a. Crunching food or chugging drinks is distracting for others.
    b. Synchronous zoom times are set in advance so reserve meals for outside class meetings.
4) **ADJUST YOUR LIGHTING SO THAT OTHERS CAN SEE YOU**
    a. It is hard to see you in dim lighting so find a location with light.
    b. If your back is to a bright window, you will be what is called "backlit" and not only is it hard on the eyes (glare) but you look like a silhouette.
5) **POSITION THE CAMERA SO THAT YOUR FACE AND EYES ARE SHOWING**
    a. If you are using the camera, show your face; it helps others see your non-verbal cues.
    b. You may be at home, but meeting in pajamas or shirtless is not appropriate so dress suitably. Comb your hair, clean your teeth, fix your clothes, etc. before your meeting time to show self-respect and respect for others.
6) **Be READY TO LEARN AND PAY ATTENTION**
    a. Catch up on other emails or other work later.
    b. If you are Zooming, silence your phone and put it away.
    c. If you are in a room with a TV – turn it off.
7) **USE YOUR MUTE BUTTON WHEN IN LOUD PLACES OR FOR DISTRACTIONS**
    a. Pets barking, children crying, sneezing, coughing, etc. can happen unexpectedly. It's best if you conference in a private space, but if you can't find a quiet place, when noises arise **MUTE** your laptop.
8) **REMEMBER TO UNMUTE WHEN SPEAKING**
    a. Follow your instructor's directions about using the **"raise hand"** icon or chat function to be recognized and to speak, but make sure you have unmuted your device.

b. Do not speak when someone else is speaking.

9) **REMAIN FOCUSED AND PARTICIPATE IN THE MEETING**
   a. Especially when the camera is on YOU, we can all see your actions. Engage in the meeting. Look at the camera. Listen to instruction. Answer questions when asked.
   b. Do not use the Zoom meeting to meet with your peers or put on a "show" for them.
10) **PAUSE YOUR VIDEO IF MOVING OR DOING SOMETHING DISTRACTING**
   a. Emergencies happen. If you need to leave the room or get up and move about, stop your video.

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

How do I show academic honesty and integrity in an online "classroom"?

- **KEEP YOUR PASSWORDS CONFIDENTIAL.**
  - You have a unique password to access online software like Canvas. Never allow someone else to log-in to your account.
- **COMPLETE YOUR OWN COURSEWORK.**
  - When you register for an online class and log-in to Canvas, you do so with the understanding that you will produce your own work, take your own exams, and will do so without the assistance of others (unless directed by the instructor).

Examples of Academic Dishonesty that can occur in an online environment:

- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you;
- Conferring with others during a test or quiz (if the instructor didn't explicitly say it was a group project, then he/she expects you to do the work without conferring with others);
- Buying or using a term paper or research paper from an internet source or other company or taking any work of another, even with permission, and presenting the work as your own;
- Excessive revising or editing by others that substantially alters your final work;
- Sharing information that allows other students an advantage on an exam (such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class);
- Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Makings SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

IMPERIAL VALLEY COLLEGE

LECTURE		LABORATORY	
Week	**Lecture Topic**	**Wednesday Lab Date**	**Laboratory Topic**
1	Course Orientation, The Sci. Study of Life	8/13	Introduction The Scientific Study of Life/Metrics (2.1)
2	Chemistry of Life	8/20	Chemical Composition of Cells (3.1- 3.3)
3	Cell Structure & Function	8/27	Microscopy (2.2-2.5)
4	The Energy of Life	9/3	Cell Structure & Function (4.1-4.3)
5	Photosynthesis	9/10	**Lecture Exam I (Weeks 1-3)**
6	Respiration & Fermentation	9/17	Enzymes (5)
7	Animal Tissues, Organs, Circulation & Respiration	9/24	**LAB EXAM I** Cellular Respiration (7.2)
8	Digestive & Urinary System,	10/1	**Lecture Exam II (Weeks 4-6)**
9	Nervous System	10/8	Fetal Pig Dissection I (27, 29)
10	DNA Structure and Gene Function	10/15	**Exam III(Weeks 7 -9)**
11	Mitosis & Meiosis	10/22	Nervous System & Senses (31)
12	Patterns of Inheritance & DNA Technology	10/29	Cellular Division (8) Human Genetics (11.1),
13	Evolution	11/5	Human Genetics: ABO Blood Typing
14	Evolution cont'd	11/12	**Lecture Exam IV (Weeks 10-12)**
15	Population Ecology	11/19	**Lab Exam II**
No Classes/Thanksgiving Break			
16	**Study for Exam V**	12/3	**EXAM V (Weeks 13-15)**

*****Tentative, subject to change without prior notice*****

Updated 08/2025