



IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	Spring 2025	Instructor Name:	John B. Horne
Course Title & #:	Biol 100 Principles of Biology	Email:	John.horne@imperial.edu
CRN #:	20956 & 21187	Webpage (optional):	
Classroom:	2717	Office #:	2724a
Class Dates:	Feb 10 – June 6	Office Hours:	Mon & Wed 1:00 – 3:00pm
Class Days:	Monday & Wednesday or Tuesday & Thursday	Office Phone #:	N/A
Class Times:	8:00– 11:10am	Emergency Contact:	Dept Secretary 760 355 6155
Units:	4	Class Format/Modality:	In person

Course Description

A comprehensive one-semester general biology course for biology majors and 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)

Prerequisite(s): Successful completion of Intermediate Algebra or appropriate placement as defined by AB705.

Course Objectives & Student Learning Outcomes

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
8. compare and contrast the fundamentals of asexual and sexual reproduction
9. demonstrate an understanding of the basis of evolution
10. define ecology and the overall impact of ecology to conditions in the environment
11. solve problems in general genetics and in human genetics and relate advances in genetics to social responsibility of geneticists
12. identify and relate the functions of the major systems of the human body; the interrelationship among body systems and nature of disease
13. classify organisms in the kingdoms of plants and animals, discuss their evolutions and their relationships



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Textbooks & Other Resources or Links

Biology 100 lab manual: ISBN-10: 1-307-87107-0

Concepts of Biology Free online ebook: <https://openstax.org/details/books/concepts-biology>

Course Requirements and Instructional Methods

Biology is a hands-on science. Students will be required to participate in all lectures, labs, and writing assignments to complete the course.

Writing assignments are student-centered and inquiry-based learning activities.

All tests will be based on the lecture and reading material. Course Grading Based on Course Objectives

Final grades will be based on performance in three areas: Exams, Labs, and Writing assignments.

Each area will be worth 1/3 of the final grade. Extra credit and bonus points will be made available as deemed appropriate by the instructor.

A \geq 90%; B = 80-89.9%; C = 70-79.9%; D = 60-69.9%; F < 60%

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

Students are expected to attend and be on time for all lectures and labs. Absences and tardies will disadvantage students and may incur other penalties as deemed appropriate by the instructor.

There is a waitlist for this class, so **students who do not show up on the first day will be dropped from the class** to make room for waitlisted students.

The timely and on-time completion of assignments is required. Late assignments will be penalized. Exceptions are generally not allowed but can be approved under special circumstances.

Updated 11/2024



Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making 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

Date or Week	Activity, Unit, or Topic	Tests/Labs/Assignments
Week 1 February 10-13	Syllabus & Introduction DNA and the Story of Life	DNA extraction lab
Week 2 February 18-20	The Chemistry of Life Cells and Membranes	Biomolecules lab Term paper topics due
Week 3 February 24-27	Molecular Biology Genetics & Heredity	Microscopy lab
Week 4 March 3-6	In-class exam #1	Cell Structure & function lab
Week 5 March 10-13	Animals & Animal Tissues	Enzymes lab
Week 6 March 17-20	Plants & Photosynthesis	Photosynthesis lab Term paper outlines due
Week 7 March 24-27	In-class exam #2	Cellular Respiration lab
Week 8 March 31-April 3	Circulation & Respiration	Writing lab
Week 9 April 7-10	Digestion & Urination	Dissection lab
Week 10 April 14-17	Disease & Immunity	Writing lab
Week 11 April 28 & May 1	Reproduction	Writing lab Term paper rough drafts due
Week 12 May 5-8	In-class exam #3	Writing lab
Week 13 May 12-15	Evolution & Population Biology	Writing lab
Week 14 May 19-22	Biodiversity & Ecology	Writing lab Term paper first drafts due
Week 15 May 26-May 29	Conservation	Writing lab
Week 16 June 2-5	In-class exam #4	Term paper final drafts due



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*****Subject to change without prior notice*****