IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Spring 2026**	Instructor Name:	**David Haisten**
Course Title & #:	**Principles of Biological Sciences_Biol 100**	Email:	**david.haisten@imperial.edu**
CRN #:	**21458**	Webpage (optional):	**https://imperial.instructure.com/**
Classroom:	**2713**	Office #:	**2713: Classroom**
Class Dates:	**2/17/26–6/12/26**	Office Hours:	**6:00-6:30 PM**
Class Days:	**M & W**	Office Phone #:	**N/A**
Class Times:	**6:30–9:40 PM**	Emergency Contact:	**Department Secretary 760 355 6155**
Units:	4.00	Class Format/Modality:	**Face to Face (On Ground)**

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)

Successful completion of Intermediate Algebra or appropriate placement as defined by AB 705.

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

This course requires 2 books and lab safety goggles. You will need the textbook for lecture, the IVC Bio 100 lab manual, and safety goggles for lab dissections.

Required Lecture Textbook:

1. Fowler, S. et al, *Concepts of Biology*, OpenStax. (2022). ISBN: 9781947172036

This textbook is OER (open educational resource); digital access and downloading it/PDF is free. Here is the link to access the book:
https://openstax.org/books/concepts-biology

NOTE: *A hardcopy of the textbook is preferable to reading on a screen. Retention of material is greatly facilitated/maximized when reading from physical books. Semester rental copies (available online; search using the title or ISBN) are the most cost-effective solution for obtaining a hardcopy of the textbook.*

2. Biology 100 Lab Manual (Custom IVC). McGraw Hill. ISBN: 9798219085406

The lab manual is available from the IVC bookstore only. You will need a copy before your first lab.

Lab Goggles (for dissection lab)
Product # MMS011799053/0
Available at retailers such as Walmart, Target, Amazon.

Course Requirements and Instructional Methods

Taking notes with a pen on paper during lecture is very important to be successful in this course. Educational studies show that taking notes on electronic devices is counterproductive to actual learning while in class. Therefore, electronic devices and notetaking are prohibited. This course requirement is in place to maximize your success.

Class activities: This class will utilize lectures, short videos, and other activities to aid your learning. You are expected to come to class having looked over the materials presented in the textbook. This will help you engage during lecture and lab. You have an obligation to your classroom peers to participate in creating an excellent learning environment in our classroom.

Lecture Exams: There will be 5 Lecture exams worth 75-125 points each (475 points total). Exams will start at the beginning of class. Each exam will be given 70 minutes for completion. If you are late for an exam, you may take the exam as long as no one in the class has finished their exam and left the room. Exams can include multiple choice, short answer, matching, and fill in the blank questions. A number 2 pencil is required for exams.

Quizzes: There will be 5 quizzes worth 15 points each (75 points total). Quizzes start at the beginning of class. Each quiz will be timed at 15 minutes.

Lab Exams: There will be one final cumulative lab examination on the last day of the course. This exam is worth 75 points.

There will be no makeup exams, except for extreme circumstances (ex. illness, emergency). If you have a valid and documentable reason for missing an exam it is your responsibility to inform me (the instructor) within 24 hours of the missed exam and provide documentation for the day of the exam. This must be done by email. Exceptions to this 24 hour timeline will only be allowed in cases where the student was incapacitated for this time (ex. Hospitalization). Without this you will be unable to make up the exam. The makeup exam will be scheduled as soon as reasonably possible, typically within 1 week of the original exam. Failure to show up for the makeup will be treated the same way as missing the original exam day. Work conflicts, family conflicts, travel, or forgetting about the exam do not count as valid excused absences. NOTE: There are no make-up lab exams.

Lab Worksheets: There will be 12 labs in this course. Each completed lab is worth 20 points. Labs are due the following week after a lab was completed, unless instructed otherwise. Lab worksheets must be stapled with pages in order, name at top right, and turned in at the start of the next lab (i.e., 6:30 pm on Wednesdays). There are no make-up labs. You must be present in lab to complete a lab.

Late Work Policy: I do not accept late work.

Extra Credit: There may be class-wide extra credit opportunities during the course at the instructor's discretion. This is at the instructor's discretion and is not available upon request.

Course Grading Based on Course Objectives

Assessment	Points	Total Points
Exams	5 @ 75-125 pts	475
Quizzes	15	75
Labs	12 @ 20	240
Lab Final Exam	75	75
Course		➢ 865

Grading Scale:	A = 90 – 100%	B = 80 – 89%	C = 70 – 79%	D = 60 – 69%	F = 0 – 59%

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.

Updated 11/2024

Instructors AI Policy: AI use is not permitted in this class for any reason. Therefore, using AI in any capacity for any assignment where you would earn points will result in an automatic 0 for cheating.

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

- Reusing work submitted in previous courses. I expect all work done in my courses to be original work for the student. A student is not permitted to reuse work done in previous courses (whether done in another course entirely or if the student is retaking this course).
  While group work is encouraged and expected on labs, note that sharing work so that others may copy it without doing the work themselves is considered cheating and will result in a 0 on the assignment for both groups.

  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 (f) using work from a previous course and submitting it for credit.

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

Biology can be challenging which means you are required to come prepared for each class by mastering lecture/lab content, and by reading assignments. We will begin each class session with a short discussion. Use the discussion periods

to ask questions, to clarify if anything was hard to comprehend or not easy to understand as well as to clarify procedures/policies. You will be given a reasonable amount of time to complete the laboratory exercises (typically one week). You are required to come prepared for each lab by reading the laboratory exercises/completing any prelab questions. Additionally, you must actively participate in all class sessions and complete all assigned work per schedule below. You should expect each class session to take the entire class period to complete.

Attendance /Participation:

Students are expected to be present and on time for each class session. You are required to participate in all discussions and group activities. There may also be in class activities/worksheets that will count towards the total grade points. It has been shown that students who regularly attend class and participate perform better on quizzes and exams than those who do not. Absences from class do not relieve students of the responsibility for missed assignments and materials covered in class. If you are unable to participate in the course due to illness, family emergency, etc., please communicate with me as soon as possible to create a plan for the best course of action. In the case of a prolonged absence of one week or more, continuation in the course will be determined on a case-by-case basis.

Labs:

Labs are completed as listed on the Syllabus, so make sure to bring your lab manual to class on Lab days. Experimental data collection is to be completed in class, lab write ups are completed at home, and labs are turned in for grading the following week after a lab was completed. *** Typically, no late submission of LABS will be accepted. No labs may be turned in for a lab where a student was not present. You must be in lab to complete a lab. No exceptions.

You should:

• Be on time. Note: no food or drink may be consumed or left open in the laboratory.

- Keep food and drinks put away or consume them outside of lab time/on break (if a break is taken during lab)

• Come prepared by reading the labs and completing pre-lab questions. Pre-lab questions may be checked at the start of any given lab.

• Listen carefully to any information given by the instructor for lab safety and protocol.

• Actively participate in each laboratory session

- Cell phones are strictly prohibited in lab unless instructed to use your phone by your instructor
    - You may receive a 3-point deduction per occurrence per lab for unauthorized cell phone use.

• Safety rules do not allow you to come to the lab with any kind of open toes shoes (no flip flops!), short pants or short skirts and tank tops. You are required to dress properly for the lab; long pants or skirts, covered toes and if you have long hair, tied and held away from the face.

• Make sure that the lab area as well as the equipment are cleaned, dried and equipment has been put away before you leave the lab. Points will be taken away if this is not done.

Cell phones/Laptops: Sending or receiving text messages and phone calls during class is disruptive and disrespectful to your classmates and instructor. So is surfing your laptop and perhaps chuckling at memes. Consequently, you must turn

off your cell phone/laptop and place it out of sight during class. Unauthorized use of cell phone/laptop/electronic devices during lecture may result in a 1-to-5-point grade penalty per incidence (penalties increase with use). As mentioned above, each incidence in lab may lead to a 3-point grade penalty.

Classroom Etiquette:

It is everyone's responsibility to create a fair, welcoming, productive, and collaborative learning environment. It falls on each of us to make sure the learning environment of our classroom is free from unnecessary distractions, personal attacks, and other disrespectful behavior. It is in your best interests and in the best interests of your fellow classmates to engage in each lesson to help us all achieve the learning goals set forth in the syllabus. Distracting and/or inappropriate behavior will be met with a warning and, if continued, will result in you being asked to leave the classroom until you are ready to engage with the material again.

Tips to Help you Succeed

1. Make sure you come on time to all lectures and labs! Arriving late or missing a class for any reason (excused or unexcused) can cause you to miss lecture and lab material and will only put you at a disadvantage in this class.
2. Make sure you know what will be happening each day for class! Check the online course schedule on Canvas.
3. Skim through or read the chapter before coming to lecture, and lab activities before coming to lab. You will have a general feel for the subject matter, which will help your understanding of the material during lecture. You will also be more prepared to do the lab activity, and you can perform it better, quicker, and will be able to easily understand what is happening in the lab.
4. Pay attention during lectures! I will say things during lecture that are not written on the PowerPoint slides or the board that will be on the exams. Make sure you take good notes during class. Do not copy down word-for-word what is on the slides. The slides are a guide with figures to help you understand your notes.
   Listen to what I have to say and take notes on that also!
5. Study, study, study! Different students will require different amounts of time to meet their goals. Ideally, you should study in an area where there are no distractions (television, radio, computers, iPods, other people, etc.). However, you should also spend time studying in groups. Nothing makes you learn the material better than having to explain it to someone else!
6. Don't cram! It's better to spend some time each week studying as compared to saving it all until the night before the exam (research really backs this up).
7. It is not enough just to memorize facts! On the exams, you will be responsible for using the information learned and applying it to new situations. You need to understand what these facts mean!

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.

IMPERIAL VALLEY COLLEGE

Anticipated Class Schedule/Calendar

Week	Lecture Topic & Associated Textbook Reading	Lab Topic & Associated Lab Manual Text
Week 1 2/18 Wednesday	Chapter 1: Scientific Study of Life: Lecture Held on Lab Day after lab: time permitting	Lab Safety: Chapter 1 Introduction to Lab and Metrics: Ch. 2
Week 2 2/23 & 2/25	(Finish Ch.1 Lecture) Chapter 2: Chemistry of life	Chemical Composition of Cells Lab: Ch. 4.1-4.3
Week 3 3/2 & 3/4	**Quiz 1: Ch.1 & 2** Chapter 3: Cell Structure & Function	Microscopy Lab: Ch. 3.2-3.3
Week 4 3/9 & 3/11	**Exam 1: Ch.1-3 (100 points)** Chapter 4.1: Energy & Enzymes	Cell Structure & Function Lab: Ch. 5.2-5.4
Week 5 3/16 & 3/18	Chapter 4.2-4.5: How Cells Obtain Energy; Cellular Respiration & Fermentation	Enzymes Lab: Ch. 6.1-6.3
Week 6 3/23 & 3/25	**Quiz 2: Ch. 4** Chapter 5: Photosynthesis	No Lab: Lecture in lab: Ch.16.1: Homeostasis & Osmoregulation Ch.16.2: Digestive System
Week 7 3/30 & 4/1	**Exam 2: Ch. 4 & 5 (75 points)** Ch. 16.3: Circulatory & Respiratory Systems	Cellular Respiration Lab: Ch. 7.2 (p.82, read introduction p.78)
4/6-4/10	SPRING BREAK	
Week 8 4/13 & 4/15	Ch.16.5: Musculoskeletal System Ch. 16.6: Nervous System	Photosynthesis Lab: Ch. 8.2 (p. 69, read introduction for lab)
Week 9 4/20 & 4/22	**Quiz 3: Ch.16.1-16.3, 16.5-16.6** Ch. 16.4: Endocrine System Begin Ch.6: Cell Reproduction	Pig Dissection Lab: Ch. 30.1-30.6
Week 10 4/27 & 4/29	**Exam 3: Ch.16 (75 points)** Chapter: 7.1-7.3: Cellar Basis of Inheritance	Mitosis Lab: Ch.9
Week 11 5/4 & 5/6	Chapter 8: Patterns of Inheritance	Senses Lab: Ch. 34
Week 12 5/11 & 5/6	**Quiz 4: Ch.6-8** Chapter 9.1-9.4: Molecular Biology	DNA Biology & Technology Lab: Ch. 13
Week 13 5/18 & 5/20	**Exam 4: Chapter 6-9 (100 points)** Chapter 11: Evolution & Speciation	Seed Plants Lab: Ch. 20
Week 14 5/25: Holiday 5/27	Lecture Held During Lab Time	No Lab: Lecture in lab: Chapter 14: Plant Diversity Chapter 15: Animal Diversity
Week 15 6/1 & 6/3	**Quiz 5: Ch.11** Chapters 19-21: Ecology Unit	No Lab: Lecture in lab: Lecture: Finish Ecology Unit
Week 16 6/8 & 6/10	**Exam 5: Ch. 11, 14, 15, 19-21 (125 points)**	**Lab Final Exam (75 points)**

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

Important Dates: Last Date to Add the Course: 2/28/26
Last Date to Withdraw From the Course with a "W": 5/16/26

Updated 11/2024