IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	**Winter 2024**	Instructor Name:	**Dr. Patrick S. Pauley**
Course Title & #:	**Biology 182**	Email:	**Patrick.pauley@imperial.edu**
CRN #:	**15254**	Webpage (optional):	**N/A**
Classroom:	**Online (CANVAS)**	Office #:	**Online (Email)**
Class Dates:	**January 2, 2024 – February 2, 2024**	Office Hours:	**N/A**
Class Days:	**N/A (Online)**	Office Phone #:	**(760) 355 - 6363**
Class Times:	**N/A (Online)**	Emergency Contact:	
Units:	**4**	Class Format:	

Course Description

This is one of two entry-level courses designed for life science, biology, health care, and science education majors intending to transfer to four-year institutions. However, this course is open to all students. This course provides students an introduction to biology and the scientific method. Additionally, properties of life leading to genetic and biological diversity are studied. The course surveys evolutionary relationships, systematics, ecology, biological diversity, population regulation, and physiology of living organisms (Protista, Fungi, Plants, and Animals). Emphasis is on structure and function at the organismal level. (C-ID: BIOL 140; C-ID: BIOL 135 S with BIOL 180 & BIOL 182) (CSU/UC)

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. Communication Skills
2. Critical Thinking

Course Objectives

Upon satisfactory completion of the course, students with a grade of “C” or better will be able to:

1. Describe the biological characteristics of life, and demonstrate an understanding of cells, and levels of biological organization.
2. Understand the process of science and demonstrate an ability to test hypotheses.
3. Define biological evolution, and demonstrate an understanding of how genetic variation and natural selection influence biological diversity.
4. Define what plants are, and provide evidence of an understanding of plant evolution, development, structure, growth, reproduction, and selected physiological processes.
5. Describe what Fungi are, and provide evidence of an understanding of development, structure, growth, and reproduction within this phylum.
6. Describe what Fungi are, and provide evidence of an understanding of development, structure, growth, and reproduction within this phylum.

7. Define what Protists are, and provide evidence of an understanding of their characteristics, structure, diversity, and reproduction.
8. Demonstrate an understanding of animal diversity, ecology and evolutionary trends.
9. Demonstrate an understanding of animal form and function including physiological processes, development, and reproduction across phyla.
10. Demonstrate an understanding of animal nervous systems from the cellular level to integrated systems.
11. Demonstrate an understanding of the structure of muscles, and the sliding filament model theory.
12. Understand animal sensory systems.
13. Demonstrate an understanding of population growth and regulation.

Textbooks & Other Resources or Links

Great news: your textbook for this class is available for **free** online!
Biology 2e from OpenStax Links to an external site., ISBN 978-1-947172-51-7

You have several options to obtain this book:

- View online Links to an external site.(Links to an external site.)
- Order a print copy Links to an external site. (Links to an external site.)

You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device.

Course Requirements and Instructional Methods

Exams:

There will be three (3) exams covering chapters assigned. The power points have already been uploaded.

Assignments:

I also will be doing weekly discussions. I do expect you to participate in these discussion boards. Discussions are an important component of many online classes. They replicate in-class (face-to-face) discussions, so they can be fertile ground for exploratory learning. They can also be fertile ground for self-assessment. When students are directed to consciously compare their ideas or their participation with other participants in the class, they may be able to adjust their participation (both quantity and quality) to meet the bar set by other students. A total of five (5) discussions will take place online over the course of the semester.

Labs:

Laboratory experiments will be conducted. A total of ten (10) labster will be assigned over the course of the semester.

Course Grading Based on Course Objectives

Class grading will be based on points accumulated in the following ways.

• Three (3) Exams Covering Chapters Assigned – 100 points each

• Ten (10) Labster Assignments – 10 points each

• Weekly Class Participation (5 weeks) – 25 points each

* Exams may include true/false, multiple choice and short answer questions. Missed quizzes and exams must be cleared with the professor to be made-up. Asking to make-up missed quizzes or exams is your responsibility and needs to be for a reasonable excuse. You have all day from 12:00AM to 11:59PM to take Exams/Quizzes. This is 24 hours so plan accordingly.

Grading: A = 100 – 90% B = 89 – 80% C = 79 – 70% D = 69 – 60% F = < 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.

Course Policies

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

• Documented student interaction with class postings, such as weekly discussions.

• 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.

What is online 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 (!!!!)].

Other Course Information

None

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

This schedule will be reviewed to include dates for the tests, assignments, and due dates. As the human experience is impacting the environment in positive and negative manners, and as the fifth IVC institutional learning outcome is global awareness this course will include human world events as part of the discussion. You will be expected to be aware of current world events and able to engage in discussion relevant to this fact. Amendments will be communicated in class and/or in canvas.

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 January 2 - 5	**Module 0:** Orientation **Module 1 (Week 1):** Chapter 1 - The Study of Life & Chapter 2 - The Chemical Foundation of Life	Labster: Earth's Atmosphere - **January 5** Labster: The Scientific Method – **January 5** Discussion: About You – **January 5** Self-Check Quiz – **January 5** Student Self-Evaluation – **January 5**
Week 2 January 8 - 12	**Module 2 (Week 2):** Chapter 3 - Biological Macromolecules & Chapter 4 - Cell Structure	Labster: Periodic Table - **January 12** Labster: Carbohydrates Sugars– **January 12** Exam 1: Chapters 1, 2, 3 & 4 – **January 12** Discussion: Health Risk – **January 12**
Week 3 January 16 - 19	**Module 3 (Week 3):** Chapter 5 - Structure and Function of Plasma Membranes, Chapter 6 - Metabolism, and Chapter 7 - Cellular Respiration	Labster: Metabolism - Karen's or Citric Acid Cycle – **January 19** Labster: Cellular Respiration – **January 19** Discussion: Human Health Risk – **January 19**
Week 4 January 22 - 26	**Module 4 (Week 4):** Chapter 8 - Photosynthesis & Chapter 9 - Cell Communication	Labster: Photosynthesis Experiment – **January 26** Labster: Signaling by Cells – **January 26** Labster: Signaling Transduction – **January 26** Discussion: Mental Health – **January 26** Exam 2: Chapters 5, 6, 7, 8 & 9 – **January 26**
Week 5 January 29 – February 2	**Module 5 (Week 5):** Chapter 30 - Plant Form and Physiology, Chapter 31 - Soil and Plant Nutrition & Chapter 32 - Plant Reproduction	Labster: Protein Synthesis – **February 2** Discussion: It's Closing Time – **February 2** Final Exam: Chapters 30, 31 & 32 – **February 2**

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