

Basic Course Information

Semester:	Summer 2022	Instructor Name:	Dr. Patrick S. Pauley
Course Title & #:	Biology 100	Email:	Patrick.pauley@imperial.edu
CRN #:	30085	Webpage (optional):	N/A
Classroom:	Online (CANVAS)	Office #:	Online (Email)
Class Dates:	June 20, 2022 – July 28, 2022	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 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 a laboratory component. (CSU, and 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. (ILO2)

Course Objectives

Upon satisfactory completion of the course, students with a grade of “C” or better 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 sub-cellular components for 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. Identify and relate the functions of the major systems of the human body; the interrelationship among body systems and nature of disease.

Textbooks & Other Resources or Links

Hoefnagels, Mariëlle. Biology: The Essentials 4th edition with Connect (Digital only) ISBN: 9781265505790

Course Requirements and Instructional Methods

Exams:

There will be six (6) exams covering chapters assigned. The power points have already been uploaded.

Assignments:

In addition, there will one (1) Fungi paper.

Discussions:

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 six (6) discussions will take place online over the course of the semester.

Labs:

Laboratory experiments will be conducted. A total of five (5) labs 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.

- Six (6) Exams Covering Chapters Assigned - 100 points each
- One (1) Fungi paper (I would like the paper to be typed, double spaced, font to be Helvetica or Ariel and 12pt) - 100 points each
- Five (5) Labs – 50 points each
- Weekly Class Participation (6 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%

Work-Based Learning

Work-Based Learning (WBL) allows students to apply classroom content in professional settings while gaining real-world experiences. These opportunities will provide you with a deeper, more engaging and relevant learning environment. This semester, I will be offering the following WBL activities in order to provide you with the opportunity to explore career options in Biology and other related fields.

WBL Activity Name	WBL Activity Description
WBL Activity 1: Identifying Variables and Writing Hypotheses	The history of science and the foundations that it is built upon is the Scientific Method. The scientific method is a method for acquiring knowledge, and it depends on designing effective experiments. You will be performing and evaluating many different experiments in this field, so it is important to become familiar with hypotheses and identifying variables.
WBL Activity 2: Exercising Methods of Measurement	In the field of science, it is very important to understand measurement methods, the units we use, and how to manipulate them to get the information we need. In this activity, you will review units of length, mass, and volume, practice converting from imperial units to metric units, and then calculate the density of objects using different methods.

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 (!!!!)].

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.

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.

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 June 20 – June 23	Module 0: Orientation Module 1 (Week 1): Chapter 1 - Scientific Study of Life & Chapter 2 - The Chemistry of Life	Chapter 1 & 2 - Pages 2 – 47 Exam 1: Chapters 1 & 2 – June 23 Assignment: WBL Activity 1: Identifying Variables and Writing Hypotheses – June 24 Discussion: About You – June 24 Self-Check Quiz – June 24 Student Self-Evaluation – June 24



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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 2 June 27 – June 30	Module 2 (Week 2): Chapter 3 - Cells & Chapter 28 - The Digestive and Urinary Systems	Chapter 3 – Pages 48 - 67 Chapter 28 – Pages 556 – 579 Exam 2: Chapters 3 & 28 – June 30 Discussion: Human Health Risk – July 1 Labs: Laboratory - Genetics – July 1 Student Self-Evaluation – July 1
Week 3 July 5 – July 7	Module 3 (Week 3): Chapter 7 - DNA Structure and Gene Function & Chapter 8 - DNA Replication and Cell Division	Chapter 7 & 8 - Pages 112 – 153 Exam 3: Chapters 7 & 8 – July 7 Discussion: Mental Health – July 8 Assignment: Fungi – July 8 Labs: Laboratory - Measuring A Pulse – July 8 Student Self-Evaluation – July 8
Week 4 July 11 – July 14	Module 4 (Week 4): Chapter 10 - Patterns of Inheritance & Chapter 25 - The Endocrine System	Chapter 10 – Pages 170 – 195 Chapter 25 – Pages 502 - 515 Exam 4: Chapters 10 & 25 – July 14 Discussion: Raw Sewage – July 15 Assignment: WBL Activity 2: Exercising Methods of Measurement – July 15 Labs: Laboratory - Earthworm Dissection – July 15 Student Self-Evaluation – July 15
Week 5 July 18 – July 21	Module 5 (Week 5): Chapter 9 - Sexual Reproduction and Meiosis & Chapter 27 - The Circulatory and Respiratory Systems	Chapter 9 – Pages 154 – 169 Chapter 27 – Pages 534 – 555 Exam 5: Chapters 9 & 27 – July 21 Discussion: Fact or Fiction – July 22 Labs: Laboratory - Frog Dissection - July 22 Student Self-Evaluation – July 22
Week 6 July 25 – July 28	Module 6 (Week 6): Chapter 23 - Animal Tissues and Organ Systems & Chapter 30 - Animal Reproduction and Development	Chapter 23 – Pages 460 – 475 Chapter 30 – Pages 598 – 621 Final Exam: Chapters 23 & 30 – July 28 Discussion: It's Closing Time – July 29 Labs: Laboratory - Pig Dissection – July 29 Student Self-Evaluation – July 29

Subject to change without prior notice