

Basic Course Information

Semester:	Summer 2023	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, 2023 – July 27, 2023	Office Hours:	N/A
Class Days:	Monday - Thursday (Online)	Office Phone #:	(760) 355 - 6363
Class Times:	N/A (Online)	Emergency Contact:	
Units:	4	Class Format/Modality:	

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, preprofessional, 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.

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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%

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)

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, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 June 20 - 22	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 22 Discussion: About You - June 23 Self-Check Quiz - June 23 Student Self-Evaluation - June 23
Week 2 June 26 - 29	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 29 Discussion: Human Health Risk - June 30 Labs: Laboratory - Genetics - June 30 Student Self-Evaluation - June 30



Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 3 July 3 - 6	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 6 Discussion: Mental Health – July 7 Assignment: Fungi – July 7 Labs: Laboratory - Measuring A Pulse – July 7 Student Self-Evaluation – July 7
Week 4 July 10 – 13	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 13 Discussion: Raw Sewage – July 14 Labs: Laboratory - Earthworm Dissection – July 14 Student Self-Evaluation – July 14
Week 5 July 17 - 20	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 20 Discussion: Fact or Fiction – July 21 Labs: Laboratory - Frog Dissection - July 21 Student Self-Evaluation – July 21
Week 6 July 24 - 27	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 27 Discussion: It's Closing Time – July 28 Labs: Laboratory - Pig Dissection – July 28 Student Self-Evaluation – July 28

^{***}Subject to change without prior notice***