



IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	Spring 2025	Instructor Name:	Setareh Madani
Course Title & #:	Human Physiology/Biol 206	Email:	setareh.madani@imperial.edu
CRN #:	20029	Webpage (optional):	Canvas page
Classroom:	2736	Office #:	2779
Class Dates:	Feb 10 – Jun 6, 2025	Office Hours:	MW 5 – 6 pm Online Zoom (link on Canvas) TR 10:15 – 11:15 am
Class Days:	MW	Office Phone #:	760 355 6148
Class Times:	9:35 – 10:40 am 10:50 am – 2:00 pm	Emergency Contact:	Department Secretary 760 355 6155
Units:	4.00	Class Format/Modality:	Face to Face (On Ground)

Course Description

Lecture and laboratory course designed to introduce the function of the human body from cellular through organ system levels of organization. Emphasis will be on integration of body systems and interrelationships for maintaining homeostasis. The practical applications of the basic concepts are presented. This course may require the use of human cadavers for observation and/or dissection. (C-ID: BIOL 120B) (CSU, UC credit limited. See a counselor.)

Course Prerequisite(s) and/or Corequisite(s)

CHEM 100 and BIOL 204 with grades of "C" or better; or successful completion of Intermediate Algebra or appropriate placement as defined by AB 705 and current California LVN/RN license.

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. Conduct and interpret the results from a urinalysis and an electroencephalogram/ electromyogram/ electrocardiogram.
2. Demonstrate understanding about the physiology associated with cells, tissues, organs, or organ systems.

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Describe homeostasis and the mechanisms to maintain homeostasis.
2. Discuss the chemical aspects of the human body.
3. Describe cell structure and function.
4. Discuss control of enzyme activity and bioenergetics.
5. List nervous system divisions and components and describe their basic functions.
6. Discuss the special senses and their nervous control.
7. Discuss the function of the endocrine system and major regulation hormones, especially the hormones of the anterior pituitary.
8. Discuss muscle function and understand the similarities and differences between different muscle types.
9. Discuss the regulation and functions of the cardiovascular system.
10. Describe the mechanism immunity.
11. Describe the functions of the respiratory system and the environmental effects.

12. Describe the kidney function and urine formation.
13. Distinguish between physical and chemical digestion and describe the functions of the digestive tract and accessory digestive organs.
14. Describe the male and female reproductive physiology and the female cyclic changes.
15. Demonstrate knowledge of metabolic and physiological disorders of the major organ systems
16. Demonstrate an understanding of the scientific method, experimental design, and the philosophy of science by applying the scientific method to physiological experiments.

Textbooks & Other Resources or Links

Required Textbook:

J. G. Betts et al. *Anatomy and Physiology*, OpenStax. ISBN: 13: 978-1-951693-42-8.

This textbook is OER (open educational resource); digital access and downloading it is free. Here is the link to access the book:

<https://openstax.org/details/books/anatomy-and-physiology-2e>

Suggested Textbooks:

- Saladin, K. 2018. *Anatomy and Physiology: The Unity of Form and Function*, 8th Ed. (or higher) McGraw-Hill Education. ISBN (8th Ed.): 978-1-259-27772-6
- Sherwood, L. 2016. *Human Physiology: From Cells to Systems*, 9th Ed. (or higher) Cengage. ISBN (9th Ed.): 9781285866932

Course Requirements and Instructional Methods

This is an intensive lecture/lab course. Make sure that you attend all the sessions; active participation is necessary to be successful in this course.

Please pay attention that:

- **there are NO Make-Up exams or class/ lab activities.** Only one absence/misled work will be excused/no harm to your final grade; more than one absence will start to decrease your final grade.
- The final grade will be based on the exams (7 exams, including the final exam) and weekly assignments, including labs and online quizzes, question sets, etc.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

Course Grading Based on Course Objectives

Final grade will be assigned based on the total points that a student earns in both lecture and laboratory sessions:

6 Exams	6 x 40 pts	240 pts
Final Exam (parts 1 and 2)	2 x 50 pts	100 pts
Weekly assignments, including labs, question sets, online quizzes, etc.		300 pts

Total **640 pts**

A: 90 – 100 %

B: 80 – 89.9 %

C: 70 – 79.9 %

D: 60 – 69.9 %

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

- A student who fails to attend the first meeting of a class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- **Food and Drink are prohibited in all labs.** Water bottles with lids/caps are the only exception. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the [General Catalog](#).
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.
- 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.



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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.

DSPS (Disabled Student Programs and Services)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodation.

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.

SOME IMPORTANT DATES TO REMEMBER:

February 22

- Deadline to register for full-term courses
- Deadline to drop full-term courses and be eligible for a Refund

February 23 (Sunday)

- Deadline to drop Spring full-term classes without a W (course appearing on transcript without receiving a W) and no fees

May 10 (Saturday)

- Deadline to drop full-term courses with a W



Anticipated Class Schedule/Calendar

Date or Week	Lecture	Lab
Week 1 Feb 10 – 13	Introduction, Syllabus Ch. 1: An Introduction to Physiology. Chemistry of Life	Lab Safety Q & A
Week 2 Feb 18 – 20	<u>Mon, Feb 17: No Classes</u> Chemistry of Life and Cell Physiology: Ch. 2	Chemical concepts needed for biology
Week 3 Feb 24 – 27	Cell physiology: Ch. 2 Plasma membrane and membrane potential: Ch. 3	Human cells Discussions
Week 4 Mar 3 – 6	Monday, Mar 3: Exam 1 (Ch. 1, 2, 3) Principles of Neural Communication: Ch. 4	Action potential and how it works
Week 5 Mar 10 – 13	Central Nervous System/CNS: Ch. 5 Peripheral Nervous System/PNS: Afferent Division: Ch. 6	CNS and neurons, Sensory Stimuli
Week 6 Mar 17 – 20	Mar 17: Exam 2 (Ch. 4, 5, 6 and the study guide for Ch. 1 – 3) Peripheral Nervous System/PNS: Efferent Division: Ch. 7	Efferent neurons and motor movements
Week 7 Mar 24 – 27	Endocrine System: Ch. 18 and 19	Glands and hormones Hyposecretion/Hypersecretion
Week 8 Mar 31 – Apr 3	Mar 31: Exam 3 (Ch. 7, 18, 19, and the study guide # 2) Blood: Ch. 11	Blood typing Discussions
Week 9 Apr 7 – 10	Cardiac Physiology: Ch. 9 Blood Vessels and Blood Pressure: Ch. 10	Electrocardiogram (EKG) Analysis Blood Pressure Measurement
Week 10 Apr 14 – 17	Apr 14: Exam 4 (Ch. 9, 10, 11, and the study guide # 3) Muscle Physiology: Ch. 8	Electromyogram (EMG) Analysis
	Spring Recess (April 20 – 26) Campus Closed	
Week 11 Apr 28 – May 1	Immunity: Ch. 12 Respiratory System: Ch. 13	Types of White Blood Cells Spirometry
Week 12 May 5 – 8	May 5: Exam 5 (Ch. 8, 12, 13, and the study guide # 4) Urinary System: Ch. 14	Urinalysis Interpretation of Values
Week 13 May 12 – 15	Fluid and Acid-Base Balance: Ch. 15 Energy and Temperature Balance: Ch. 17	Value Interpretation/Acid-Base and Energy/Temperature
Week 14 May 19 – 22	May 19: Exam 6 (Ch. 14, 15, 16, and the study guide # 5) Digestive System: Ch. 16	Metabolism and Metabolic Types
Week 15 May 27 – 29	<u>Mon, May 26: No Classes</u> Reproductive System: Ch. 20	Reproductive Physiology, Hormones and Values
Week 16 Jun 2 – 5	Monday, June 2: Final Exam, part 1 (Ch. 1 – 10) Wednesday, June 4: Final Exam, part 2 (Ch. 11 – 20)	

Subject to change without prior notice