



## Basic Course Information

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|-------------------|--|------------------------|---|
| Semester:         | Spring 2026                                    | Instructor Name:       | Alison Mills  |
| Course Title & #: | Human Physiology - BIOL 206                    | Email:                 | alison.mills@imperial.edu   |
| CRN #:            | 20030  | Webpage (optional):    | Canvas  |
| Classroom:        | 2737   | Office #:              | 2768  |
| Class Dates:      | 2/17/26 - 6/12/26                              | Office Hours:          | Monday 4:10PM – 4:40PM<br>Tuesday 1:30PM – 2:30PM<br>Wednesday 2:40PM – 4:10PM<br>Thursday 1:30PM – 2:30PM<br>Or by appointment |
| Class Days:       | Tuesdays & Thursdays                           | Office Phone #:        | TBD   |
| Class Times:      | Lecture 2:40pm – 3:45pm<br>Lab 3:55pm – 7:05pm | Emergency Contact:     | alison.mills@imperial.edu   |
| Units:            | 4  | 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. (ILO 1,2)
2. Demonstrate understanding about the physiology associated with cells, tissues, organs, or organ systems. (ILO 1,2)

## 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 aspect 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 mechanisms of 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:

This course will use the **digitally free** open educational resource from Openstax

You can view the book on the web or download a PDF version for free using this link:

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

Anatomy and Physiology 2e from OpenStax. Published 4/20/22. Web version last updated 6/15/25. ISBN 978-1-711494-06-7.

Print versions are available for purchase at the online IVC Bookstore <https://www.bkstr.com/imperialvalleystore/home> and for purchase online from the Kendall Hunt publishing company and Amazon.

## Course Requirements and Instructional Methods

This course consists of two lecture and two lab sections every week, with a lab immediately following the lecture. The course is designed so that concepts taught in lecture are applied in a laboratory activity. You must attend both lecture and lab. Teaching will be aided with the use of PowerPoint and videos, based on the materials derived from the textbook and other sources. Students will be asked to answer questions related to materials covered in each chapter.

**Exams:** There will be 5 noncumulative exams worth 100 points each. Exams will be administered during scheduled class time. On exam days, class time will be dedicated to the exam only. Make sure to bring writing implements. A pencil is required to mark answers on the Scantron; a pen is recommended for free-response questions. Free response questions must be written in pen if the student wishes to request a regrade on a question. Scantrons will be provided. There will be no makeup exams, except for extreme circumstances (see “**Course Policies**” below for details).

To support student learning and reduce the impact of a single poor exam performance, the **lowest exam score will be replaced by the average of the remaining exam scores if the average is higher**, provided that all exams have been completed. This replacement is applied automatically **at the end** of the semester.

**Labs:** Laboratory activities will include a combination of Labster virtual labs, in-class hands-on activities, data analysis, and physiological case studies. Specific laboratory activities may change based on class progress, equipment availability, or instructional needs. Concepts from labs assigned in class will appear on exams; there will be no separate lab exams.

There will be 25 lab activities worth 20 points each. These activities will be completed during lab sessions and turned in at the end of each lab. Your highest 20 scores will be included in your final grade (meaning, your lowest five (5) worksheet scores will be dropped). Dropped labs are intended to cover absences and unforeseen circumstances. Regular



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attendance is still essential for success. Students may work in groups of 2-3 on lab activities, but EACH student is responsible for actively participating.

Laboratory activities in this course include a combination of in-class, time-dependent activities and Labster simulations. In-class laboratory activities cannot be made up if missed, as they involve live data collection, group work, or hands-on components that cannot be replicated outside of class. Labster simulations may be submitted late with a penalty (see "**Late Policy and Makeups**") unless otherwise specified.

As mentioned previously, the lowest five (5) lab activity scores are dropped at the end of the semester to account for absences, illness, and unforeseen circumstances. This policy is intended to reduce the need for individual makeup requests.

**Online Worksheets:** There will be 15 online worksheets worth 10 points each. These worksheets will focus on lecture materials and will be available on Canvas each week. Each worksheet will be due at 11:59pm on the Sunday of each week they are assigned. Dates indicated in the course outline below. Online worksheets may be submitted late with a penalty (see "**Late Policy and Makeups**").

#### **In-Class Extra Credit**

Periodically during lecture, students may be given short, unannounced conceptual questions to answer in class. These questions are designed to reinforce key physiological concepts and encourage active participation. Each activity is worth a small amount of extra credit. Extra credit is optional and cannot lower a student's grade.

**Spelling and grammar:** If spelling or grammar impede my ability to understand your answer you will lose points. Correct spelling does count on exams.

**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**

|   |      |
|---|------|
| 5 Noncumulative Exams (100 points each) ----- | 500  |
| 20 Lab Activities (20 points each) -----      | 400  |
| 15 Online Worksheets (10 points each) -----   | 150  |
| Total Points Possible -----                   | 1050 |

#### **Grade Breakdown:**

- = 90–100%
- B = 80–89.99%
- C = 70–79.99%
- D = 60–69.99%
- F = <60%

Grade scale adjustments may be made at the discretion of the instructor. However, anyone receiving  $\geq 90\%$  of all points is guaranteed at least an A,  $\geq 80\%$  of all points at least a B, and  $\geq 70\%$  of all points at least a C. The grade cutoffs might fall below these levels but will not be raised above them.

#### **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



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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.

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: plagiarism, copying or attempting to copy from others during an examination or on an assignment, communicating test information with another person during an examination, allowing others to do an assignment or portion of an assignment, using a commercial term paper service, or 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

### Attendance:

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online 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.
- Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

### Classroom Rules:

- Wear closed toe shoes and other protective clothing. This is for your safety working in a lab environment. Even though we may not always be working with lab equipment we will be in a lab environment.
- Drinks are allowed in secured containers. All food and snacks should be consumed outside of the lab. If you need to eat, please step outside of the classroom and return promptly when you're finished.
- If you need to use the restroom during class, you do NOT need instructor permission. You may quietly exit the classroom and return promptly.
- Cell phones must be silenced during class. Excessive use of a cell phone in class for nonclass related matters is prohibited and you will be asked to leave. If you must make or take a call, please step outside of the classroom and return promptly when you're finished.
- No talking during lecture portions of class. If you have a question please raise your hand.
- Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.



### Classroom Etiquette:

- Creating a safe and welcoming environment: Everyone in class (instructor included) should strive to create a classroom atmosphere that is respectful, open, and welcoming in which all are invited to learn, prepare, and explore new ideas. We all come from different and diverse backgrounds, interests, and traditions that enrich how we all learn. We all have a collective responsibility to create a scholarly environment where everyone is encouraged to feel comfortable participating and is shown compassion, courtesy, and respect.
- Upholding ethical standards: You as a student should be comfortable sharing your views with your classmates and your professors. It is fine to have open discussion of competing ideas. However, when engaged in discussion remember we are challenging ideas NOT individuals. Therefore, personal attacks and prejudicial remarks are NOT allowed under any circumstance.
- Communication is key: My goal is to provide you with the best learning experience while recognizing that everyone has different circumstances and challenges. With this in mind, please don't hesitate to let me know what I can do to help you succeed. I'm happy to support you to the best of my ability and/or help direct you to campus resources to help you succeed.

### Late Policy and Makeups:

- As stated previously, there will be NO makeup exams and NO makeup in-class lab activities, except for extreme circumstances. Missed labs generally do not require makeups because the lowest 5 lab worksheets are dropped; exceptions may be considered for extended or serious circumstances. Minor illness, work conflicts, family conflicts, travel, or forgetting about the lab assignment/exam DO NOT count as emergencies. In the case of an emergency, it is your responsibility to contact the instructor as soon as possible.
  - Examples of extreme circumstances:
    - Medical emergencies or extended medical care, including mental health support
    - Loss of a family member or loved one
    - Exceptions will be at the discretion of the instructor
- Online homework (including Labster simulations) may be submitted late but will be docked 5% of the value of the assignment (to max 50% off) per calendar day late unless arrangements to turn it in late were made in advance. The first day late is recorded 5 min after the due date and time. After the 50% limit is reached, you may still turn in the assignment up until the last day of class meetings, for a maximum possible of 50% of the value of the assignment.

### 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](mailto: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.

### Anticipated Class Schedule/Calendar

| Week                     | Topic & Reading            | Online Worksheet Due Dates |
|--------------------------|----------------------------|----------------------------|
| Week1<br>Feb 17 & Feb 19 | T: Syllabus & Introduction | February 22<br>11:59pm     |



| Week                           | Topic & Reading   | Online Worksheet Due Dates |
|--------------------------------|---|----------------------------|
|                                | R: Introduction to Physiology and Homeostasis: Ch 1-3   |                            |
| Week 2<br>Feb 24 & Feb 26      | T: Cell Physiology: Ch 1-3<br><br>R: The Plasma Membrane: Ch 1-3  | March 1 11:59pm            |
| Week 3<br>March 3 & March 5    | T: Principles of Neural Communication: Ch 12-16<br><br>R: <b>Exam 1 – Intro to Physiology; Homeostasis; Cell Physiology; Plasma Membrane</b>                  | March 8 11:59pm            |
| Week 4<br>March 10 & March 12  | T: Neurophysiology: The Central Nervous System: Ch 12-16<br><br>R: Neurophysiology: The Peripheral Nervous System: Afferent Division/Special Senses: Ch 12-16 | March 15 11:59pm           |
| Week 5<br>March 17 & March 19  | T: Neurophysiology: The Peripheral Nervous System: Efferent Division: Ch 12-16<br><br>R: Muscle Physiology 1: Ch 10   | March 22 11:59pm           |
| Week 6<br>March 24 & March 26  | T: Muscle Physiology 2: Ch 10<br><br>R: Cardiac Physiology 1: Ch 18-20  | March 29 11:59pm           |
| Week 7<br>March 31 & April 2   | T: <b>Exam 2 – Neurophysiology and Muscle Physiology</b><br><br>R: Cardiovascular Physiology: Cardiac Physiology 2: Ch 18-20                                  | April 5 11:59pm            |
| Week 8<br>April 14 & April 16  | T: Cardiovascular Physiology: Blood Pressure and Blood vessels: Ch 18-20<br><br>R: Cardiovascular Physiology: Blood Physiology: Ch 18-20                      | April 19 11:59pm           |
| Week 9<br>April 21 & April 23  | T: Pulmonary Physiology 1: Ch 22<br><br>R: Pulmonary Physiology 2: Ch 22  | April 26 11:59pm           |
| Week 10<br>April 28 & April 30 | T: Immunology 1: Ch 21<br><br>R: <b>Exam 3 – Cardiovascular Physiology; Pulmonary physiology</b>  | May 3 11:59pm              |
| Week 11<br>May 5 & May 7       | T: Immunology 2: Ch 21<br><br>R: Renal Physiology 1: Ch 25  | May 10 11:59pm             |



| Week                         | Topic & Reading   | Online Worksheet Due Dates     |
|------------------------------|---|--------------------------------|
| Week 12<br>May 12 & May 14   | T: Renal Physiology 2: Ch 25<br><br>R: Digestion 1: Ch 23-24                                | May 17 11:59pm                 |
| Week 13<br>May 19 and May 21 | T: Digestion 2: Ch 23-24<br><br>R: Endocrinology 1: Ch 17                                   | May 24 11:59pm                 |
| Week 14<br>May 26 and May 28 | T: <b>Exam 4 – Immunology; Renal Physiology; Digestion</b><br><br>R: Endocrinology 2: Ch 17 | May 31 11:59pm                 |
| Week 15<br>June 2 & June 4   | T: Reproductive Physiology 1: Ch27-28<br><br>R: Reproductive Physiology 2: Ch27-28          | June 7 11:59pm                 |
| Week 16<br>June 9 & June 11  | T: Review day<br><br>R: <b>Exam 5 – Endocrinology; Reproductive Physiology</b>              | Final exams. No worksheet due. |

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