



## Basic Course Information

Semester:	<b>Fall 2024</b>	Instructor Name:	<b>Karah Street, Ph.D</b>
Course Title & #:	<b>BIOL 206 Human Physiology</b>	Email:	<b>Karah.street@imperial.edu</b>
CRN #:	<b>10539</b>	Webpage (optional):	<b>Canvas page: <a href="https://imperial.instructure.com/">https://imperial.instructure.com/</a></b>
Classroom:	<b>Lec and Lab 2736</b>	Office #:	<b>2768</b>
Class Dates:	<b>8/12-12/7</b>	Office Hours:	<b>M/W 2:15-4:45pm (not 3rd Mondays)</b>
Class Days:	<b>M/W</b>	Office Phone #:	
Class Times:	Lecture 9:35am-10:40 am and Lab 10:50-2:00pm	Emergency Contact:	<b>Department Secretary: 760 355 6155</b>
Units:	4	Class Format/Modality:	Face-to-Face

If you have any questions, feel free to reach out to me. I am more than happy to help, and my desire is for you to succeed in this class and beyond in your goals toward your career path. Yes, it will be hard work and it is a selfish class when it comes to the time commitment involved. -Dr. Karah Street

**“Character cannot be developed in ease and quiet. Only through experience of trial and suffering can the soul be strengthened, ambition inspired, and success achieved.” ~ Helen Keller**

*This syllabus is a guideline for the course and an educational contract between the instructor and students. The calendar at the end of this syllabus is a tentative schedule. Changes may be made to the syllabus as deemed necessary for errors, updates or in emergency circumstances. Announcements will be made on the Canvas announcement board and emailed to students if changes are made.*

## 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 120 B) (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

*J. G. Betts et al. Anatomy and Physiology OpenStax, ISBN: 9781938168130. This is an OER textbook and digital access to this textbook is free: <https://openstax.org/details/books/anatomy-and-physiology>*

**Lecture PowerPoints:** Available on Canvas and arranged by units.

## Course Requirements, Instructional Methods, Grading and Attendance Policies

This course is face to face. It is expected that students will be present for both lecture and lab. Lapses in participation and completing classwork will make it difficult to succeed in the class. Therefore, I have a strict attendance policy. Students will be dropped from the class if they do not attend the first day of lab and lecture. If something comes up that will keep you away from your class work, please email me so we can



discuss the situation and figure something out. Students will also be dropped if they miss two days of lecture and lab.

### *GRADING CRITERIA*

A: 90 – 100%

B: 80 – 89.9%

C: 70 – 79.9%

D: 60 – 69.9%

F: 59.9 % and below

#### ***LECTURE (44% of your grade)***

There will be 4 total exams. Each one will be 11% of your grade. The lecture exams include multiple-choice, true/false, fill-in-the-blank, and essay questions. The exam format can consist of multiple choice, fill-in, flow charts and short answers. If there is a severe or compelling reason why you missed an exam, it is always helpful to supply proof (doctor's note, court order, etc) a make up exam will be given the last week of the semester. This is up to the discretion of the professor.

#### ***LAB EXAMS (45% of your total grade)***

- There are 3 exams worth 15 % each counting toward your final grade.
- Lab exams are scheduled during our regular lab meetings. Many questions are anatomy-based and include the identification of organs, structures, or tissues. Additional questions may include graphing, data analysis, and short answers pertaining to the lab activities completed during the labs. **NO WORD BANK** will be given during the exams. Spelling counts!
- These are timed exams consisting of identifying structures on lab models, photographs, and/or preserved specimens. Exam format can consist of fill-in and/or multiple choice.
- Each practicum consists of up to 25 stations (some with multiple questions per station). Students will be required to identify and write the names of structures identified on models and dissected material or answer questions relating to the laboratory exercises. Spelling counts!
- Lab exams cannot be made up. If there is a severe or compelling reason why you missed a lab exam, your lowest exam score on record will replace the missing grade. It is always helpful to supply proof (doctor's note, court order, etc). If the lab exam is missed for any other reason, it is up to the discretion of the professor and could mean a zero entered for your grade.
- Students requesting accommodation through DSPS must email me at least 3 days before the lab exam to notify me of their needs.

#### ***LAB AND HOMEWORK ASSIGNMENTS AND LAB Participation (11% of your total grade)***

- Homework assignments (5.5%) will not be accepted late as all students must submit the homework for me to post the answers to the class.
- Lab assignments and lab participation (5.5%)



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I also understand that there may sometimes be apprehension in vocal participation because you may be shy, you may feel if you say the "wrong" thing you fail or have had past negative experiences in other courses. Please know that I will do my best to achieve a safe and positive space for our interactions. But if it isn't, please let me know. As an instructor, I need to know early. Give me a chance to be better.

Regular class attendance and participation are required for fruitful outcomes. Sometimes, life gets in the way of learning. Inform me at the earliest to identify a reasonable process when possible. Keep in mind that I will also need to remain prudent and equitable.

### **Academic Honesty (Artificial Intelligence -AI) and our classroom rules**

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.

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 importance 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. How do I show academic honesty and integrity in an online "classroom"?



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- **KEEP YOUR PASSWORDS CONFIDENTIAL.** o You have a unique password to access online software like Canvas. Never allow someone else to log-in to your account.
  - **COMPLETE YOUR OWN COURSEWORK.** When you register for an online class and log-in to Canvas, you do so with the understanding that you will produce your own work, take your own exams, and will do so without the assistance of others (unless directed by the instructor).

Examples of Academic Dishonesty:

- 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 be either deliberate or unintentional.

#### **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 (!!!!)].



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I know that starting a new course, possibly on a new campus, can be challenging and demanding. We all come from different walks of life, with our own unique cultural backgrounds, experiences, and of course identities. To make sure you are well equipped to succeed in this course, let's learn about all the tools accessible to you to prosper.

- **Email:** I am available through Canvas email, or my personal email listed at the top of the syllabus. My goal is to respond to all my emails within 24-48 hours. If you don't hear back from me within the given timeframe, please message me again.
- **Office hours:** These predetermined are a time for you to come in and chat with me or your classmates, review exams, and/or go over study guide questions and homework questions. I believe office hours are YOUR time, not my time. Come visit me even if you just want to work on your homework packet while I am next to you.
- **Phone:** The phone number above is my private cell phone number, so please be mindful that I may not pick up or text you back right away. I might be teaching another class.
- **Weekly "What to expect for the following week."** There will be variations in weekly workload throughout the semester. Some weeks will be more demanding than others. I will help with identifying these variations with my weekly announcements on Canvas while managing these deviations is your responsibility. I'll be happy to provide study practices and strategies that would aid you with time management and ensure you stay focused throughout the semester.

## OUR COURSE ETIQUETTE

I would like us to remain professional, kind, and respectful, in our in-person and online environment because each of us deserves that. To keep our community active, supportive, and engaged, we will settle on a few ground rules during our first week of classes. By participating in our community, you agree to be very familiar with and abide by these ground rules.

Our list:

1. As a community, we are working together for a common goal or interest.
2. Be responsible for keeping our online and in-person community safe.
3. Contribute regularly to collaborative activities.
4. Ensure other members of our community have ample opportunity to read/listen, reflect, and respond to your ideas.
5. Respect the diverse opinions and viewpoints of each member.
6. Understand that communications shared through text have a higher likelihood of being misinterpreted than the spoken word. Therefore, when you type a thought or a comment, read it carefully before you submit it. If you question the way it is worded, read it out loud to yourself. If you still question the way it's phrased, rewrite it.
7. Commit to your physical and mental wellness.



If at any time, you feel that any of these ground rules have been violated by a member of our community, you are encouraged to bring your concern directly and immediately to me. Clearly identify which ground rule has been violated and include specific evidence of the violation. Your concerns will be addressed promptly with careful consideration and in an individualized manner.

### **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.*

### **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.

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

**CANVAS LMS.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas, use this link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use: 877-893-9853.

- Learning Services. There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.

**Library Services.** There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources. Students have counseling and health services available, provided by the pre-paid Student Health Fee.

**Student Health Center.** A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128 in Room 1536 for more information.

**Mental Health Counseling Services.** Short-term individual, couples, family and group counseling services are available for currently enrolled students. Services are provided in a confidential, supportive, and culturally sensitive environment. Please contact the IVC Mental Health Counseling Services at 760-355-6310 or in the building 1536 for appointments or more information.



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**Veteran's Center:** The mission of the IVC Military and Veteran Success Center is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

**The Extended Opportunity Program and Services (EOPS):** offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population. Also under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, [lourdes.mercado@imperial.edu](mailto:lourdes.mercado@imperial.edu). EOPS provides additional support and services that may identify with one of the following experiences:

- Current and former foster youth students that were in the foster care system at any point in their lives
- Students experiencing homelessness
- Formerly incarcerated students To apply for EOPS and for additional information

**The Student Equity Program:** strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.

The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.



## Anticipated Class Schedule/Calendar

Date or Week	Lecture Schedule	Lab Schedule
Week 1 Aug 12	Introductions and syllabus policies Homeostasis/gene expression	Body fluid compartments/ metric system/molarity/osmolality/ scientific notation- see handouts on Canvas
Week 2 Aug 19	Endocrine system and clinical implications	PhysioEx 4- activities 1,2 and 4 PhysioEx 11 (activities 1-4)
Week 3 Aug 26	Erythropoiesis and red blood cell destruction	White blood cells and immunity
Week 4 Sept 2	<b>HOLIDAY SEPT 2<sup>nd</sup></b> Hemostasis/platelets and clinical implications <b>Homework due: Sept 5<sup>h</sup> by 11:59pm</b>	Blood typing and HDN PhysioEx 12- activities 3 and 4
Week 5 Sept 9	<b>Lecture exam 1: Sept 9<sup>th</sup></b> Cell membranes, proteins and membrane transport	Lab exam review Membrane potentials and action potentials
Week 6 Sept 16	Dendrites to synapses: neurotransmitters, second messenger systems and clinical applications (drugs/toxins)	<b>Lab exam 1- 9/16; lab handouts and physioEx due</b> Continue with lecture material
Week 7 Sept 23	Autonomic nervous system and clinical applications	PhysioEx 1: activities 1-3 and 5 PhysioEx 3: activities 3-5; 7- 9 Physiology of the digestive system and metabolism
Week 8 Sept 30	Properties of skeletal muscle, neuromuscular junction, reflex arcs and clinical application Homework due Oct 4 <sup>th</sup> 11:59pm	PhysioEx 8 activities 1-4 PhysioEx 2 activities 1-6
Week 9 Oct 7	<b>Lecture exam 2: Oct 9<sup>th</sup></b> Specialized and contractile cells	Cardiac cycle begin EKG analysis
Week 10 Oct 14	Vessels and flow dynamics, MAP and short-term regulation of blood pressure- review of heart anatomy and fetal circulation;	<b>Lab exam 2- October 14 lab handouts and physioEx due</b>
Week 11 Oct 21	Capillary hemodynamics and lymphatic system Cardiovascular pathology <b>Homework 3 due Oct 25<sup>th</sup> 11:59pm</b>	Discussion on PhysioEx 6 : cardiovascular physiology activities 1,2, and 4 PhysioEx 5 - cardiovascular dynamics activities 1-7



Date or Week	Lecture Schedule	Lab Schedule
Week 12 Oct 28	Lecture exam 3- October 28th	Renal Physiology 1 and 2
Week 13 Nov 4	Respiratory Physiology 1 and 2	PhysioEx 9 activities 1-6 Renal Clearance Values
Week 14 Nov 11	<b>Holiday: November 11th</b> External and Internal respiration	Respiratory Physiology/Work of breathing Acid base balance and clinical workshop
Week 15 Nov 18	Finish all lecture material and review for lecture exam 4	PhysioEx10 activities 1-3 PhysioEx 7 activities 1-4
<b>Week 16</b> <b>Nov 25-30</b>	<b>Campus closed: Thanksgiving Holiday Week</b> <b>Homework due: November 29<sup>th</sup> 11:59pm</b>	
Week 17 Dec 2	Finish all lecture material and review for lecture exam 4 Lecture exam 4 Wednesday Dec 4th	Lab exam 3 Monday Dec 2 lab handouts and physioEx due

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