

### Basic Course Information

Semester:	<b>Spring 2020</b>	Instructor Name:	<b>Jia Sun</b>
Course Title & #:	<b>Human Physiology - BIOL 206</b>	Email:	<b>Jia.sun@imperial.edu</b>
CRN #:	<b>20044</b>	Webpage (optional):	<b>N/A</b>
Classroom:	<b>2735/2737</b>	Office #:	<b>2778</b>
Class Dates:	<b>2/18/20 - 6/12/20</b>	Office Hours:	<b>MTWR: via Email R: 12-1PM MW: 2:06-2:36PM</b>
Class Days:	<b>MW</b>	Office Phone #:	<b>(760) 355-6521</b>
Class Times:	<b>Lecture: 1PM-2:05PM Lab: 4:20PM-7:30PM</b>	Emergency Contact:	<b>Jia.sun@imperial.edu</b>
Units:	<b>4</b>		

### 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. (CSU) (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 and CHEM 100 and BIOL 204

or

Appropriate placement as defined by AB705, or MATH 098 or MATH 091 with a grade of "C" or better and Current California LVN or 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 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

Sherwood, Lauralee *Human Physiology: From cells to systems* Cengage, ISBN: 9781285866932

## Course Requirements and Instructional Methods

This is an intensive lecture/lab course. Students will be called on to answer questions during lectures. Students will utilize the textbook, labs, models, and computer software in the course. Students will be assessed using exams, iClicker questions, and lab assignments.

Exams:

The course includes four (4) equally-weighted exams. The first (1) exam is a **diagnostic/TAKE HOME** exam, students can use any resource to complete that exam. The next three (3) will be in-class and closed-book exams, they will include materials covered both in lecture and lab. While the exams may not be fully cumulative; no concept in biology is truly independent, so each might require knowledge of previously covered material.

Labs:

Concept from all labs assigned in class will be present during exams. Twenty two (22) individual labs will be graded at the end of the day that they are assigned, before students leave the class. The lowest two (2) labs will be dropped at the end of the semester. In addition, the course will also include a (1) comprehensive multi-part ECG lab that will require data analysis and interpretation. All labs must be done in groups of 2-3 students due to the limitation on the number of laptop computers.

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.

**THE LAST DAY TO DROP THE COURSE WITH A 'W' IS 5/16**

<b>Course Grading Based on Course Objectives</b>		
Exams	4 x 125pts	500pts
ECG Lab	1 x 50pts	50pts
Labs	20 x 10pts	200pts
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		<b>750pts</b>

The Following grade cutoffs are guaranteed:

A: ≥ 90%; B: ≥ 80%; C: ≥ 70%; D: ≥ 60%

**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 Etiquette**

- 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 classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. 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, no one who is not enrolled in the class may attend, including children.

**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.

### **Additional Student Services**

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.

### **Disabled Student Programs and Services (DSPS)**

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 accommodations.

### **Student Counseling and Health Services**

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..

### **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.

### **Extended Opportunity Program and Services (EOPS)**

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 on EOPS services, please contact Alexis Ayala, 760-355-5713, [alexis.ayala@imperial.edu](mailto:alexis.ayala@imperial.edu).

### **Student Equity Program**

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.

### **Student Rights and Responsibilities**

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC [General Catalog](#).

### **Information Literacy**

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC [Library Department](#) provides numerous [Information Literacy Tutorials](#) to assist students in this endeavor.

**Anticipated Class Schedule/Calendar**

WK	DATE	LECTURE	LABORATORY
<b>1</b>	2/17	<b>HOLIDAY</b>	
	2/19	Course Introduction	Course Introduction
<b>2</b>	2/24	Neurons (4)	Interactive Physiology (IP)
	2/26	Neurons (4)	IP
<b>3</b>	3/2	Central Nervous System (5)	IP - <b>Diagnostic Exam Out</b>
	3/4	Peripheral Nervous System: Afferent Division (6)	IP
<b>4</b>	3/9	Peripheral Nervous System: Efferent Division (7)	IP - <b>Diagnostic Exam In</b>
	3/11	Peripheral Nervous System: Efferent Division (7)	IP
<b>5</b>	3/16	Muscle Physiology (8)	IP
	3/18	Muscle Physiology (8)	Lecture catchup
<b>6</b>	3/23	<b>EXAM I</b>	<b>EXAM I</b>
	3/25	Cardiac Physiology (9)	IP
<b>7</b>	3/30	Cardiac Physiology (9)	IP
	4/1	Blood Vessels & Blood Pressure (10)	IP
<b>8</b>	4/6	BIOPAC (ECG)	BIOPAC (ECG)
	4/8	Blood (11)	Sphygmomanometers & Stethoscopes
<b>SPRING BREAK - APRIL 13-19</b>			
<b>9</b>	4/20	Immunity (12)	Blood Typing
	4/22	Immunity (12)	IP
<b>10</b>	4/27	Respiratory System (13)	IP
	4/29	Respiratory System (13)	Lecture catchup
<b>11</b>	5/4	<b>EXAM II</b>	<b>EXAM II</b>
	5/6	Urinary System (14)	IP
<b>12</b>	5/11	Urinary System (14)	IP
	5/13	Digestive System (16) <b>FINAL 'W' DROP DATE 5/16</b>	IP
<b>13</b>	5/18	Digestive System (16)	IP
	5/20	Endocrine System: Central Glands (18)	IP
<b>14</b>	5/25	<b>HOLIDAY</b>	
	5/27	Endocrine System: Central Glands (18)	IP
<b>15</b>	6/1	Endocrine System: Peripheral Glands (19)	IP
	6/3	Male Reproductive Physiology (20)	Urinalysis
<b>16</b>	6/8	Female Reproductive Physiology (20)	Lecture catchup
	6/10	<b>EXAM III</b>	<b>EXAM III</b>

**\*\*\*Tentative, subject to change without prior notice\*\*\***