

### Basic Course Information

Semester:	<b>2017 Winter</b>	Instructor Name:	<b>Rosalba Jepson</b>
Course Title & #:	<b>Anatomy &amp; Physiology 1 BIO 200</b>	Email:	<b>Rosalba.jepson@imperial.edu</b>
CRN #:	<b>15180</b>	Webpage (optional):	
Classroom:	<b>2737</b>	Office #:	<b>2126</b>
Class Dates:	<b>1/3/2017 - 2/3/2017</b>	Office Hours:	<b>2:45 PM-3:45 PM</b>
Class Days:	<b>MTWRF</b>	Office Phone #:	<b>760-355-6294</b>
Class Times:	<b>8:30AM - 2:40 PM</b>	Emergency Contact:	<b>760-554-9213</b>
Units:	<b>4</b>		

### Course Description

Human anatomy and physiology. A two-semester study of the structure and function of the human organism, from the molecular to the gross level. This course may require the use of human cadavers for observation and/or dissection. Preparatory for RN program and paramedical programs. (CSU) (UC credit limited, See a counselor)

### 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. Illustrate competency related to topics in human anatomy and physiology using pre- and post-examination. (ILO 1,2)
2. Identify the anatomy and/or physiology processes related to cells, tissues, or organ systems.(ILO 1,2)
3. Describe the components of the human skeleton and its articulations.(ILO 1, 2)

### Course Objectives

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

1. List the characteristics of the human organism and describe the body's organization, regions, and cavities.
2. Describe the structure and explain the function of the cell membrane, cytoplasm, nucleus and associated organelles. The student will describe genetic regulation and protein synthesis.
3. List and describe the types, function, and locations of the different tissues in the body.
4. Describe the structure of the integumentary system and derivatives and will explain their functions.
5. Explain bone formation and functions. The student will also recall the names and location of skeletal parts and describe the various types of articulations.

6. Explain the molecular theories of muscle contraction and will recall the names, location and actions of selected muscles.
7. Explain transmission and regulation of nerve impulses. The student will describe the structure and function of the human brain, spinal cord, and sensory organs.
8. Explain hormone action and will list and describe the function of selected human hormones.

### **Textbooks & Other Resources or Links**

- Textbook: Saladin, K.S. (2015). Anatomy & Physiology: The Unity of Form and Function. 7<sup>th</sup> edition. New York, NY. McGraw-Hill ISBN: 978-0073403717.
- Lab book: Marieb, E., Smith, L. (2016). Human Anatomy & Physiology Laboratory Manual. (Fetal Pig Version). 12<sup>th</sup> edition. Pearson Education. ISBN: 978-0133925593.
- Rubber gloves are provided for lab assignments; masks are not. Lab coats may be useful if you prefer but is not necessary.

### **Course Requirements and Instructional Methods/Evaluation**

Prerequisites: MATH 091 or MATH 090.

CHEM 100 and BIOL 100, or

BIOL 122, or BIOL 180, or BIOL 182 with a grade of "C" or better  
or Current California LVN/RN license.

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.

Instructional Methods include any of the following: Lecture, Demonstration, Discussion, Group Activity, Audio Visual, Individual Assistance, Lab Activity, Simulation/Case Study, Computer Assisted Instruction

Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.

Method of Evaluation: Class/Lab Activity, Objectives, Exams, Final exams, Quizzes, Problem Solving Exercise, Skill Demonstration, Written Assignments

### **Assignments**

Out-of-class:

- Read each chapter of the text book that is covered during the course.
- Complete Lab Manual assignments:
  - Study anatomical terminology related to body regions and body cavities
  - Draw and label all of the components of a cell; of a DNA molecule; the phases of mitosis; the components of the skin; the axial and appendicular skeleton and components of the skeletal muscles; the four primary tissues; the major components of the brain and the nervous system/autonomic nervous system
  - List the cranial nerves and provide a description of their functions
  - Study prepared tissue slides as assigned (from university/medical web site)
  - View assigned web sites that provide physiological videos/animations <br> <br>

### Reading and Writing:

- Compose an essay on (your choice). Read a related article and also describe :
  - DNA replication
  - Protein synthesis (your choice)
  - Plasma membrane permeability and how things cross the plasma membrane
  - Mitosis, differentiating from Meiosis
  - Action potential and nerve synapses
  - Endochondral and intramembraneous bone ossification
- Read topical articles as assigned and be prepared to discuss in class
- Provide a list of bones of the body and include all bones that articulate with the listed bone Compose an essay describing how a bone fracture heals
- Describe the sliding filament model in joint movements necessary to pick something up off of the ground
- Describe the contracting and extending muscles involved in picking something up off of the ground

### **Course Grading Based on Course Objectives**

- Written exams worth 100 points each. Final exam 100 points.
- Quizzes may be worth 5 -20 points each and may be given unannounced.
- Two Lab Practicums: Midterm -100 points; and Final - 100 points
- Lab assignments are mandatory. Most lab assignments cannot be made-up if student misses the lab component of the class. There will no make-ups for missed laboratory exercises and exams.
- There are no make-ups for missed written exams and quizzes. Your instructor reserves the right to review extreme cases, only if notified three (3) days in advance.
- Grades are as followed:

A	90 - 100%
B	80 - 89%
C	70 - 79%
D	60 - 69%
F	< 60%

### **Measurable Course Objectives (Minimum standards for grade of “C”).**

### **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.
- If you decide to drop the class, it is your responsibility to drop the class before designated the deadline. **Deadline for dropping with a “W” is: January 26, 2017**
- 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.
- Attendance will be taken at the start of each lecture and lab class. Students are expected to attend the full instructional periods of lecture and laboratory until dismissed by the instructor or risk being counted as tardy or absent. Missing a lab class constitutes as an absent and will affect your final grade.
- It is strongly advised not to be absent on the day of an exam or lab practicum. There will be no make-up tests, especially for Lab practicums. You must be present on day of all exams. Please advise your instructor if you foresee a conflict with exam days.

### **Classroom Etiquette**

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor. Use of personal laptops are prohibited during class time, unless used during the allotted preparation time for group projects or presentations.
- 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.
- Students are responsible to maintaining the lab, lab equipment and lab supplies clean. all items will be returned to a designated area and the lab cleaned before dismissing students at the end of the class.
- It is important to maintain a clutter-free environment to safeguard the safety of students.

### **Online Netiquette**

- What is 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 (!!!)].

### **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.

- **Blackboard Support Site.** The Blackboard Support Site provides a variety of support channels available to students 24 hours per day.
- **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 therapy are provided to currently enrolled students. Contact the IVC [Mental Health Counseling Services](#) at 760-355-6196 in Room 2109 for more information.

### 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 1	Lectures	Lab Activities, Assignments
1-2	No Class - Holiday	
1-3 Tues	Ch 1 Orientation to Human Anatomy p.1-37 1. Intro. to human anatomy & physiology 2. Historical perspective 3. Classification & characteristics of humans 4. Body organization, and regions 5. Clinical considerations	Lab orientation, anatomy terms –Language of Anatomy Exercise 1:1-5 p.1-14 Exercise 2:5 p.15-16, 23-26
1-4 Wed	Ch 2 Cell Chemistry p.41-73 1. Atoms, Ions, Molecules 2. Water and mixtures 3. Chemical reactions 4. Cellular respiration, ATP	Introduction to the microscope Preparing and viewing slides Exercise 3:1, 3:2, 3:4, 3:5 p.27-38 <b>Quiz – Body regions</b>
1- Thur	Ch 3 Cell Form & Function p.77-108 1. Cell Chemistry, membrane and structures 2. Cell membrane transport and potential 3. Cytoplasm and organelles 4. Clinical consideration	Cell Anatomy & Division Exercise 4:1- 4:6 p.39-52
1-6 Fri	Ch 4 DNA, Genetics, Cellular Function p.112-136 1. Cell nucleus and genetic regulation 2. DNA and protein synthesis 3. Cell life cycle and cell division	Cell Permeability and Transport Mechanisms Exercise 5:1, 5:2, 5:3, 5:5 p.53-66
Wk 2	Lectures	Lab Activities, Assignments
1-9 Mon	Ch 5 Tissue/Histology p.140-172 1. Epithelial tissue 2. Connective tissue 3. Osseous tissue 4. Muscle tissue 5. Nervous tissue 6. Vascular tissue 7. Tissue repair	Classification of Tissues Exercise 6:1, 6:2, 6:3, 6:4 p.67-92 <b>Exam 1 – Ch 1-4</b>

<b>Wk 2</b>	<b>Lectures</b>	<b>Lab Activities, Assignments</b>
1-10 Tue	Ch 6 Integumentary System p.176-198 1. Anatomy 2. Epidermal derivatives 3. Clinical consideration	Anatomy of the Integumentary System Exercise 7:1-6 p.93-106
1-11 Wed	Ch 7 Skeletal Tissue p.202-225 1. Organization and function 2. Endochondral ossification 3. Bone structure and growth	Bone tissue Exercise 8:1, 8:2, 8:3, 8:4 p.107-120
1-12 Thu	Ch 8 Skeletal System 1. Axial system 2. clinical considerations	Axial Skeleton: Skull & Vertebral column, thoracic cage Exercise 9:1, 9:2, 9:3, 9:4, 9:5, 9:6 p. 121-147 Quiz Ch 5-6
1-13 Fri	Ch 8 Skeletal System 1. Appendicular System 2. Clinical considerations	Appendicular Skeleton Exercise 10:1 to 10:5 p. 14-169
<b>Wk 3</b>	<b>Lectures</b>	<b>Lab Activities, Assignments</b>
1-16	No classes - Holiday	
1-17 Tue	Ch 9 Joints p.274-304 1. Classification of joints 2. Synovial and Diarthroses joints 3. Rotation and movements of joints 4. Clinical considerations	<b>Exam 2 – Ch 5-8</b> <b>Mid Practicum – Ch 1-8</b>
1-18 Wed	Ch 11 Muscle Tissue p.397-431 1. Characteristics of muscle tissue 2. Structure of muscle fiber 3. Motor neurons and neuromuscular junction 4. Energy for muscle contraction	
1-19 Thur	Ch 10 Muscular System p.308-339 1. Structure and organization development 2. Name, location, action of major muscles 3. Head and torso muscle functions 4. Clinical considerations	
1-20 Fri	Ch 10 Muscular System p.339-369 1. Structure and organization development 2. Head and torso muscle functions 3. Name, location, action of major muscles 4. Regional & surface anatomy p.377-396 5. Clinical considerations	<b>Quiz ch 9 – Range of motion</b>
<b>Wk 4</b>	<b>Lectures</b>	<b>Lab Activities, Assignments</b>
1-23 Mon	Ch 12 Nervous tissue p.435-470 1. Structural and function of Neurons 2. Supportive cells (Neuroglia) 3. Electrical potentials of neurons 4. Synapses 5. clinical considerations	<b>Exam 3 – Ch 9-11</b>
1-24 Tue	Ch 14 CNS – Brain and cranial nerves p.507-553 1. Organization & function of the nervous system 2. Structure & function of the brain & spinal cord	

