

### Basic Course Information

Semester:	Winter 2017	Instructor Name:	Mohammad Ahrar
Course Title & #	Bio. 204 -Human Anatomy	Email:	Mohammad.ahrar@imperial.edu
CRN #:	15036	Webpage (optional):	
Classroom:	2726 - 2736	Office #:	2726
Class Dates:	Jan. 3 to Feb. 3, 2017	Office Hours:	8 -8:25am
Class Days:	M/T/W/R/F	Office Phone #:	760-355-6355
Class Times:	8:30-9:45 a, 10 a - 12:10 p 12:30 – 2:40 p	Emergency Contact:	858-774-8184
Units:	4		

### Course Description

Lecture and laboratory course designed to study the fundamental principles of the human body structure at the cellular, tissue, organ, and systems level of organization, including the fetal pig and organ dissection, study of the human skeleton, structural-functional relationships, and appreciation of related human diseases and aging. This course may require the use of human cadavers for observation and/or dissection. (CSU) (UC credit limited. See a counselor.)

**PREREQUISITES:** MATH 091 or MATH 090, and BIOL 100 or BIOL 180, BIOL 182 with a minimum grade of C or better or MATH 091 or MATH 090 with a grade of "C" or better 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: Display critical thought related to topics in human anatomy using written forms of expression and examination. (ILO2, ILO3, ILO4), Display knowledge of anatomy and dissection competency using cat specimens as subjects. (ILO2, ILO3), Display critical thought related to topics in human anatomy as it applies to a global perspective. (ILO2, ILO5), Demonstrate competency in communicating information related to the anatomy of the heart. (ILO1, ILO3, ILO4)

### Course Objectives

Upon satisfactory completion of the course, students will be able to: 1. characterize the levels of structural organization in the human body and to describe regional names, directional terms, planes and sections, body cavities and abdominal regions and quadrants. 2. define a cell and explain the structure and functions of its principle parts. 3. identify and discuss the origin, classification, structure, location and function of four major types of tissues. 4. describe the structural and functional characteristics of the various layers of the skin, the epidermal derivatives. 5. describe the gross features of a long bone and the process of bone formation. 6. identify all the bones of the skeleton and their important surface markings. 7. describe the structural and functional classification of the joints and to describe the important characteristics of selected joints. 8. describe the connective tissue components, the motor unit, the neuromuscular junction, and the microscopic anatomy of muscle tissue. 9. describe how the skeletal muscles provide specific movements of the body, and identify the principal skeletal muscles of the body. 10. describe the major surface features of the head, neck, trunk, and upper and lower extremities. 11. describe characteristics of the blood plasma and the formed elements of the blood. 12. describe the general flow of blood through the systemic and pulmonary circulation, the structural

and functional features of the heart. 13. contrast the structure and functions of blood vessels and identify the major vessels in the body. 14. trace lymphatic circulation and describe the structure and functions of lymphatic tissues and organs. 15. describe the organization of the nervous system, and contrast the histological characteristics and functions of neurons and neuroglia. 16. describe the anatomy of the spinal cord, the reflexes, and the origin, composition, and branches of spinal nerves and nerve plexuses. 17. identify the principal parts of the brain and cranial nerves, and explain the formation and circulation of cerebrospinal fluid. 18. describe the components of sensations, major characteristics of sensory receptors, the sensory pathways, integration of sensory input and motor input, and the motor pathways. 19. identify the structures of the eyes and the ears, and to describe the neural pathways for olfaction, taste, vision, hearing and equilibrium. 20. compare the structural and functional differences between the somatic and autonomic nervous systems. 21. describe the location, histology, and functions of the major endocrine glands of the body. 22. identify the structures of the respiratory system and the mechanics of pulmonary ventilation. 23. identify and describe the structure and functions of the organs of the gastrointestinal tract and the accessory organs of digestion. 24. identify the features of the kidney, describe the blood supply to the kidney, and describe the location, structure and function of ureters, urinary bladder, and urethra. 25. identify and describe the structure, histology, and functions of the male and female reproductive systems, and to explain the principal events of gametogenesis. 26. describe the major events that occur during pregnancy. 27. demonstrate dissection skills using animals and/or a human cadaver.

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

Textbook: Human Anatomy, 4th Ed. Kenneth S. Saladin- McGraw-Hill Company, 2014  
ISBN 978-0-07-337829

Lab manual: Integrate- Custom library for Anatomy and Physiology. The Pearson Learning Solutions, 2014.  
Available at bookstore ISBN 13: 978-1-269-76300

### **Course Requirements and Instructional Methods**

This is an intensive lecture/lab course, and requires daily studying. Students need to bring the textbook and the lab manual to each class. Lab experiments and lab assignments are based on the materials and procedures explained in the lab manual. Supplemental information and questionnaire relevant to each exercise will be included in the lab assignments. Teaching will be aided with the use of PowerPoint, based on the materials derived from the textbook and other sources. Videos and CD-ROM, charts and models of different organs will be used during lab hours. Lab works will be collected at the end of each lab, and points will be given to each completed lab work. Missed labs will not receive any point. Some of the questions from the assignments will be used in quizzes or tests. Students will be provided by an outline for each chapter at the beginning of the class. 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**

Your course grade will be based on quizzes, exams, lab assignments, and research and oral presentation. Anticipated points awarded toward the final grade include; 1-Total of 5 tests, 30 points each. 2- Total of 21 lab assignments, 5 points each. 3- Final exam 100 points. 4- Research and presentation, 35 points. Total possible points = 390 points.  
Calculating Grade Point; To calculate your grade; add all the points earned during the course, divide that value by total possible points, and multiply by 100. Example; if the total points that you earned is 350 points out of 390 possible points, then your average grade for the course would be;  $350 : 390 \times 100 = 87.2$  which equals the letter grade “B”. Extra Credit may be awarded in the form of bonus questions on exams, class participation and

conduct (perfect attendance, no tardiness, and following class policies and class etiquettes), total of maximum 10 extra points. Grading scale: A = 90 % or higher, B = 80-89 %, C = 70-79 %, D = 60-69 %, F ≤ 59 %.

### **Attendance**

- Students are expected to attend all classes and lab sessions and participate in each class activity. An absence is assessed each time a student is not in attendance during a regularly scheduled class period, whether or not it is an excused absence.
- 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.
- Perfect attendance and no tardiness may receive extra credit (mentioned above)

### **Classroom Etiquette**

- Ethical behavior in the classroom is required of every student. As a diverse community of learners, students must strive to work together in a setting of civility, tolerance, and respect for each other and for the staff and instructors.
- [Electronic Devices](#): Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- [Talking during lectures](#) is not tolerated. I would like to ask my students to be very quiet during lectures. Discussions about the class materials and assignments during lab hours is OK.
- [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.
- Perfect observance of classroom etiquette may receive extra credit (mentioned above)

### **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.

### **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 and El Centro Regional Center provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC [Student Health Center](#) at 760-355-6310 in Room 2109 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, Winter 2017

DATE	Lecture	Laboratory
Tue. 1/3/2017	Ch. 1, The study of Human Body	Introduction- Lab safety guidelines The Language of Anatomy (page 1 lab manual)
Wed. 1/4/2017	Ch. 2, Cytology – The study of cells	The cell- Handout Microscopic study of the cells
Thu. 1/5/2017	Ch. 3, Histology – The study of tissues	Classification of Tissues (page 17) Studying the primary tissue types & function.
Fri. 1/6/2017	Ch. 5, The Integumentary system	The integumentary system ( page 45) <b>Test 1 (Ch. 1 to 3) + last 3 experiments</b>
Mon. 1/9/2017	Ch. 6, The skeletal system I, Bone tissue Ch. 7, The skeletal System II- Axial skeleton	Overview of skeleton: structure of bone/cartilage The axial skeleton (page 73)
Tue. 1/10/2017	Ch. 7, The Axial skeleton, cont. Ch. 8, The skeletal System III- Appendicular	The axial skeleton, cont. The appendicular skeleton (page 101)
Wed. 1/11/2017	Ch. 9, The skeletal System IV Joints Ch. 10, The muscular system I	Joints – handout Gross anatomy of muscular system (page121)
Thu. 1/12/2017	Ch. 10 Muscular system I, cont. Ch. 11, The muscular system II- Axial	Muscular system - Axial. Use of models <b>Test 2 (Ch. 5 to 8) + last 5 lab exp./practical</b>
Fri. 1/13/2017	Ch. 12, The muscular system III- Appendicu	Muscular system – appendicular – cadaver study
Mon. 1/16/2017	<b>Holiday – No class</b>	<b>No Lab</b>
Tue. 1/17/2017	Ch. 13, The nervous system I-Nervous tissue Ch. 14 The nervous system II- spinal cord	Gross anatomy of brain and cranial nerves (p. 159) <b>Test 3 (Ch. 9 to 12) + last 3 exp./practical</b>
Wed. 1/18/2017	Ch. 15, The nervous system III- Brain	Anatomy of brain – sheep brain dissection
Thu. 1/19/2017	Ch. 16, The nervous system IV- Autonomic	Autonomic nervous system - handout
Fri. 1/20/2017	Ch. 17 The nervous system V: Sense organs	Special senses – The eye (page 185) Special senses – the ear and equilibrium (p 199)
Mon. 1/23/2017	Ch. 18, The endocrine system	The endocrine system – Handout <b>Test 4 (Ch. 13 to 17) + last 5 exp./practical</b>
Tue. 1/24/2017	Ch. 19, The circulatory system I - Blood	Blood (page 215)

Wed. 1/25/2017	Ch. 20, The circulatory system- II- the heart	Anatomy of the heart (page 235) <b>Sheep heart dissection</b>
Thu. 1/26/2017	Ch. 21, The circulatory system III – Blood vessels	Anatomy of blood vessels (page 249)
Fri. 1/27/2017	Ch. 22, The lymphatic system and Immunity	Immunity - handout
<b>Mon.</b> 1/30/2017	Ch. 23, The respiratory system	Anatomy of the respiratory system (page 273) <b>Test 5 (Ch. 18 to 22) + lab exp./practical</b>
<b>Tue.</b> 1/31/2017	Ch. 24, The digestive system	Anatomy of the digestive system (page 287)
<b>Wed.</b> 2/1/2017	Ch. 25, The urinary system	Urinary system - Handout
<b>Thu.</b> 2/2/2017	Ch. 26, The reproductive system Ch. 4, Human development	Anatomy of reproductive system (page 309)
<b>Fri.</b> 2/3/2015	<b>Chapter review</b>	<b>Final Exam (Ch. 4, 23 to 26) + experiments Plus Skeleton and muscle practical</b>

**\*\*\*Anticipated class schedule is tentative, and subject to change\*\*\***