



### Basic Course Information

Semester:	<b>Spring 2024</b>	Instructor Name:	<b>Asif Razee</b>
Course Title & #:	<b>Human Anatomy/ BIOL 204</b>	Email:	<b>asif.razee@imperial.edu</b>
CRN #:	<b>20740</b>	Webpage (optional):	<b>N/A</b>
Classroom:	<b>2737</b>	Office #:	<b>2737</b>
Class Dates:	<b>2/12/24 – 6/5/24</b>	Office Hours:	<b>Mon/Wed 3:30 – 4:30 pm Tue/Thu 1:30 – 2:30 pm</b>
Class Days:	<b>MW</b>	Office Phone #:	<b>760 355 5743</b>
Class Times:	<b>16:45-17:50 AM 18:00-21:10 PM</b>	Emergency Contact:	<b>Department Secretary: 760 355 6155</b>
Units:	<b>4</b>	Class Format:	<b>Face-to-Face (On Ground)</b>

### 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 cat 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. (C-ID: BIOL 110B) (CSU, UC credit limited. See a counselor.)

### Course Prerequisite(s)

BIOL 100 or BIOL 122 or BIOL 124 or BIOL 180 or BIOL 182, 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. Display critical thought and competency in communicating information related to topics in human anatomy. (ILO1, ILO2, ILO4)
2. Display knowledge of anatomy and dissection competency using mammal and/or human cadaver specimen as subjects. (ILO1, 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 principal parts.
3. Identify and discuss the origin, classification, structure, location and functions of four major types of tissues.
4. Describe the structure and function 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; 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; describe the structure and functions of lymphatic tissues and organs.
15. Describe the organization of the nervous system and contrast 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; Identify the principal parts of the brain and cranial nerves; explain the formation and circulation of cerebrospinal fluid.
17. Describe the components of sensations, major characteristics of sensory receptors, the sensory pathways, integration of sensory input and motor input, and the motor pathways.
18. Identify the structures of the eyes and the ears, and describe the neural pathways for olfaction, taste, vision, hearing, and equilibrium.
19. Compare the structures and functions of the somatic and autonomic nervous systems.
20. Describe the location, histology, and functions of the major endocrine glands of the body.
21. Identify the structures of the respiratory system and the mechanics of pulmonary ventilation.
22. Identify and describe the structure and functions of the digestive organs and accessory organs.
23. Identify the features of the kidneys; describe the blood supply to the kidney, and describe the location, structure and functions of ureters, urinary bladder, and urethra.
24. Identify and describe the structure, histology, and functions of the male and female reproductive systems, and explain the principal events of gametogenesis; describe the major events that occur during pregnancy.
25. Demonstrate dissection skills using animals and/or a human cadaver.

### 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>



Lab manual: Integrate- BIOL 204 Human Anatomy- Imperial Valley College (Custom). The Pearson Learning Solutions, 2019. ISBN 13: 9781323943281

## Course Requirements and Instructional Methods

This class an intensive lecture/lab course. The course is designed so that concepts taught in lecture are applied in a laboratory. Teaching will be aided with the use of PowerPoint, based on the materials derived from the textbook and other sources. Students will be asked to answer questions relative to materials covered in each chapter. Models, charts, dissections, and microscopic specimen will be used during lab hours. **Missed sessions and late works will not receive any points.**

**Exams:** The course will include six non-cumulative lecture exams (30 pts each) and lab practical exams (20pts each), a cumulative final lecture exam (50 pts), and a cumulative lab exam (50 pts). Exams will include multiple-choice questions, true or false, fill in the blanks, or/and essay/ short answer questions.

**There are NO Make-Up exams or class/ lab activities** except for extreme circumstances. If you have a valid, documented reason for missing an exam, it is your responsibility to tell me about it and provide valid documentation by the next class meeting, otherwise you will not have the opportunity to make up the exam and will be given a zero for that exam.

**Lab assignments:** There are no graded lab assignments. There will be approximately 17 labs throughout the semester. Students may work in groups of 2-3 people or individually during the lab.

**Homework:** While there will be no assigned homework, you are encouraged to complete book practice problems even though I am not collecting them.

**Project/Presentation:** Students will do an oral presentation (30 points) on Disorders of a Body System/ Anatomical Replacement. Details to follow on CANVAS.

- **It is your responsibility** to frequently check and read the new announcements thoroughly on Canvas.

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 project/oral presentation. Anticipated points awarded toward the final grade include:



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6 Equally-Weighted Non-Cumulative Exams.....	6 x 50 pts .....	300 pts
Lab Final Exam (cumulative) .....	1 x 50 pts .....	50 pts
Lecture Final Exam (cumulative) .....	1 x 50 pts .....	50 pts
Presentation/Research .....	1 x 30 pts .....	30 pts
<b>TOTAL</b>		<b>430pts</b>

Total possible points = 430 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 365 points out of 430 possible points, your average grade for the course would be;  $(365/430) \times 100 = 85\%$  which equals the letter grade “B”. Extra Credit may be awarded in the form of critical thinking questions or bonus questions on exam.  
Grading scale:     A  $\geq$  90 %     B  $\geq$  80%     C  $\geq$  70%     D  $\geq$  60%

### 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 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.

### Course Policies

#### Attendance

- A student who fails to attend the first meeting of a 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. There is to be no food or drink, including water bottles in lab class.** 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, only students enrolled in the class may attend; children are not allowed.

### 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.



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- **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



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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.



## 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.

**Some Important Dates to Remember:** (please check Imperial Valley College Important Dates & Deadlines)

- February 16, 2024: Holiday- Lincoln’s Birthday. No classes.
- February 19, 2024: Holiday- Washington’s Birthday. No classes.
- February 25, 2024 (Sunday): Last day to drop WITHOUT “W”
- April 1-7, 2024: Spring Recess. No classes.
- May 11, 2024 (Saturday): Last day to drop WITH “W”
- May 27, 2024: Holiday – Memorial Day. No classes.

## Anticipated Class Schedule/Calendar

		LECTURE		LABORATORY	
Week	Lecture Date	Lecture Topic	Lab Date	Laboratory Topic	
1	2/12	M: Syllabus, Introduction	2/12	M: Lab Intro and Safety. lab safety form: <a href="#">Science Safety Policy form</a>	
	2/14	W: The Study of Anatomy (Ch. 1)	2/14	W: The Language of Anatomy (1)	
2	2/19	M: <b>HOLIDAY, no class</b>	2/19	M: <b>HOLIDAY, no class</b>	
	2/21	W: The Cellular Level of Organization (Ch. 3)	2/21	W: The Cell (17)	
3	2/26	M: The Tissue Level of Organization (Ch. 4)	2/26	M: Classification of Tissues (31) Tissue types & function, Microscope slides	
	2/28	W: The Integumentary System (Ch. 5)	2/28	W: The Integumentary system (57)	
4	3/4	M: <b><u>EXAM 1: (Ch. 1,3,4&amp;5 + Lab)</u></b>	3/4	M: <b><u>EXAM 1: (Ch. 1,3,4&amp;5 + Lab)</u></b>	
	3/6	W: The Skeletal System (Ch. 6 – 9)	3/6	W: Overview of skeleton: structure of bone/cartilage (71)	
5	3/11	M: The Skeletal System (Ch. 6 – 9)	3/11	M: The Axial Skeleton (83)	
	3/13	W: The Skeletal System (Ch. 6 – 9)	3/13	W: The Appendicular Skeleton (111)	



<b>6</b>	3/18	M: <b><u>EXAM 2: (Ch. 6-9 + Lab practical)</u></b>	3/18	M: <b><u>EXAM 2: (Ch. 6-9 + Lab practical)</u></b>
	3/20	W: The Muscular System (Ch. 10 – 11)	3/20	W: Muscular system- Axial. Use of models; Gross anatomy of Muscular System (133, 2 day lab)
<b>7</b>	3/25	M: The Muscular System (Ch. 10 – 11)	3/25	M: Muscular system – appendicular (133 cont'd)
	3/27	W: The Nervous System (Ch. 12 – 16)	3/27	W: Gross Anatomy of the Brain & Cranial Nerves (171, 2-day lab)
<b>Spring Break, no class</b>				
<b>8</b>	4/8	M: <b><u>EXAM 3: (Ch. 10-12 + Lab practical)</u></b>	4/8	M: <b><u>EXAM 3: (Ch. 10-12 + Lab practical)</u></b>
	4/10	W: The Nervous System (Ch. 12 – 16)	4/10	W: Gross Anatomy of the Brain & Cranial Nerves (171, 2-day lab) - <b>Dissection</b>
<b>9</b>	4/15	M: The Nervous System (Ch. 12 – 16)	4/15	M: Special Senses – The eye (197)- <b>Dissection</b> , The ear & equilibrium, (209)
	4/17	W: The Endocrine System (Ch. 17)	4/17	W: Lecture cont'd, Endocrine Handout & Blood Lab (227)
<b>10</b>	4/22	M: <b><u>EXAM 4: (13-17 + Lab practical)</u></b>	4/22	M: <b><u>EXAM 4: (13-17 + Lab practical)</u></b>
	4/24	W: The Cardiovascular System (Ch. 18 – 20)	4/24	W: Anatomy of the heart (247)- <b>Dissection</b> <b>Presentation Topic Approval Deadline</b>
<b>11</b>	4/29	M: The Cardiovascular System (Ch. 18 – 20)	4/29	M: Blood Vessels (279)
	5/1	W: The Respiratory System (Ch. 22)	5/1	W: Anatomy of Respiratory System (285)
<b>12</b>	5/6	M: <b><u>Exam 5: (18-21, &amp; 23 + Lab practical)</u></b>	5/6	M: <b><u>Exam 5: (18-21, &amp; 23 + Lab practical)</u></b>
	5/8	W: The Lymphatic and Immune System (Ch. 21)	5/8	W: Study Session, <b>Presentation Prep</b> , No lab



<b>13</b>	5/13	M: The Digestive System (Ch. 23)	5/13	M: Anatomy of the Digestive System (297)
	5/15	W: The Urinary System (Ch. 25)	5/15	W: Urinary System – models, handout
<b>14</b>	5/20	M: <b><u>Exam 6: (22 &amp; 24-26 + Lab practical)</u></b>	5/20	M: <b><u>Exam 6: (22 &amp; 24-26 + Lab practical)</u></b>
	5/22	W: The Reproductive System (Ch. 27)	5/22	W: Anatomy of the Reproductive System (319), models
<b>15</b>	5/27	M: <b><i>HOLIDAY, no class</i></b>	5/27	M: <b><i>HOLIDAY, no class</i></b>
	5/29	W: Presentations	5/29	W: Presentations, Open Lab, Models,
<b>16</b>	6/3	M: In-class activities, Review, Study Guide	6/3	M: Open Lab, Models
	6/5	<b>W: FINAL EXAM (CUMULATIVE)</b>	6/5	<b>W: FINAL EXAM (CUMULATIVE)</b>

**\*\*\*Changes and revision can be made without prior notice; students will be informed of changes\*\*\***