



### Basic Course Information

Semester:	<b>Fall 2024</b>	Instructor Name:	<b>Fatima Villalobos</b>
Course Title & #:	<b>Human Anatomy - BIOL 204</b>	Email:	<b>fatima.villalobos@imperial.edu</b>
CRN #:	<b>10023</b>	Webpage (optional):	<b>N/A</b>
Classroom:	<b>2737</b>	Office #:	<b>2777</b>
Class Dates:	<b>8/12/24 - 12/07/24</b>	Office Hours:	<b>M,W: 8:45am-10:15am, T, R: 9am-9:30via email, Pronto, in person OR by appt.</b>
Class Days:	<b>N/A</b>	Office Phone #:	<b>760.355.5743</b>
Class Times:	<b>9:35am-10:40am; 10:50-2pm</b>	Emergency Contact:	<b>fatima.villalobos@imperial.edu or 760.355.5743</b>
Units:	<b>4</b>	Class Format:	<b>Face-to-face</b>

### Course Description

Lecture and laboratory course designed to introduce the fundamental principles of the human body structure from cellular through organ system levels of organization, including 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 110 B) (CSU) (UC credit limited. See a counselor.) (CSU/UC)

### Course Prerequisite(s) and/or Corequisite(s)

BIOL 100 or BIOL 122 or BIOL 124 or BIOL 180 or BIOL 182 with a grade of "C" or better; or appropriate placement as defined by AB705, or MATH 098 or MATH 091 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:

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 specimens 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 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.



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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

#### 1. Required OER textbook

We will use the digitally free and open educational resource (OER) provided by OpenStax:

OpenStax College. (updated 2023). *Anatomy and Physiology 2e*. OpenStax College, Retrieved from <https://openstax.org/details/books/anatomy-and-physiology> (Links to an external site.)

Your book is available in [web view and PDF for free](#). (in our Canvas course). A print version of the text is also available for purchase at the [IVC Bookstore](#).

#### 2. Required Lab Manual

BIOL 204 Imperial Valley College Lab Manual. This is a custom Lab Manual for this class and is available for purchase at the [IVC Bookstore](#) ISBN-13: 9780137782116

### 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, lab manual and other sources. Students will be asked to answer questions relative to materials covered in each chapter. Models, video dissections, images and the lab manual will be used during lab hours. **Late penalty may apply for some assignments such as discussions/labs.**

**Exams:** The course will include approximately eight non-cumulative lecture exams (20-30 pts each) and lab practical exams (10-20pts each), and a cumulative lab final exam. Total Exam points range from 30-50 pts per exam.

**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 will be approximately twenty assigned labs throughout the semester. Students will work in groups of 4-5 people. At the end of each lab, each group is responsible for turning in a completed lab worksheet worth ten points each. All group members will write their name on the lab sheet. Lab groups cannot leave the lab until all members of the group have finished the experiments. Lab groups will have to show me the completed work from the lab and may be asked to explain their answers before the lab group is allowed to leave the lab. Lab groups must thoroughly clean up after themselves, or else groups will be assigned to do clean up at the end of the next lab and/or have point deductions of 10% or more. There will be an opportunity to drop 1 of the lowest lab scores before final grades are submitted.

### **In-class assignments and mini-quizzes**

Lecture class will include in-class assignments and/or mini-quizzes. While you will not be graded on attendance, you will be graded on these in-class activities.

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.

### **What if I need to borrow technology or access to WIFI?**

1. To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: <https://imperial.edu/students/student-equity-and-achievement/>
2. If you'd like access the WIFI at the IVC campus, you can park in parking lots "I & J". Students must log into the IVC student WIFI by using their IVC email and password. The parking lots will be open Monday through Friday from 8:00 a.m. to 7:00 p.m.

#### **Guidelines for using parking WIFI:**

- Park in every other space (empty space BETWEEN vehicles)
- Must have facemask available
- For best reception park near buildings
- Only park at marked student spaces
- Only owners of a valid disabled placard may use disabled parking spaces
- Only members of the same household in each vehicle
- Occupants **MUST** remain in vehicles
- Restrooms and other on-campus services not available
- College campus safety will monitor the parking lot
- Student code of conduct and all other parking guidelines are in effect
- Please do not leave any trash behind

#### **-No parking permit required**

If you have any questions about using parking WIFI, please call Student Affairs at 760- 355-6455.

**DATES TO REMEMBER: (please check Imperial Valley College Important Dates & Deadlines)**

- **August 25, 2023:** Last day to drop WITHOUT “W”
- **September 2, 2024:** Holiday- Labor Day. No classes.
- **November 2, 2024 (Saturday):** Last day to drop WITH “W”
- **November 11, 2024:** Holiday- Veteran’s Day. No classes.
- **November 25-29, 2024:** Holiday- Thanksgiving. No classes.

**Course Grading Based on Course Objectives**

Your course grade will be based on exams, lab assignments, discussions, reading assignments and research project/oral presentation. Anticipated points awarded toward the final grade include:

▪ 8 Non-Cumulative Exams/Lab Practicals	8 x 30 (avg) pts =	240 pts
▪ Final Cumulative Lab Practical	1 x 50 pts =	50 pts
▪ Labs	(21-1) x 10 pts =	200 pts
▪ In class participation/mini-quizzes	15 x 2 pts =	30 pts

TOTAL 520 pts

For example, if Total possible points = 520 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 430 points out of 520 possible points, your average grade for the course would be;  $(430/520) \times 100 = 83\%$  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  $\geq 60\%$

No exceptions.

**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 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.

### **What does it mean to “attend” an online class?**

Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computer-assisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is NOT adequate to demonstrate academic attendance by the student.

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

### **How am I expected to act in an online “classroom” (especially Zoom)?**

Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips below for best results:

**1) Be RESPECTFUL**

- a. Your written, verbal, and non-verbal communications should be respectful and focused on the learning topics of the class.

**2) Find a QUIET LOCATION & SILENCE YOUR PHONE (if zooming)**

- a. People walking around and pets barking can be a distraction.

**3) EAT AT A DIFFERENT TIME.**

- a. Crunching food or chugging drinks is distracting for others.
- b. Synchronous zoom times are set in advance so reserve meals for outside class meetings.

**4) ADJUST YOUR LIGHTING SO THAT OTHERS CAN SEE YOU**

- a. It is hard to see you in dim lighting so find a location with light.
- b. If your back is to a bright window, you will be what is called “backlit” and not only is it hard on the eyes (glare) but you look like a silhouette.

**5) POSITION THE CAMERA SO THAT YOUR FACE AND EYES ARE SHOWING**

- a. If you are using the camera, show your face; it helps others see your non-verbal cues.
- b. You may be at home, but meeting in pajamas or shirtless is not appropriate so dress suitably. Comb your hair, clean your teeth, fix your clothes, etc. before your meeting time to show self-respect and respect for others.

**6) Be READY TO LEARN AND PAY ATTENTION**

- a. Catch up on other emails or other work later.
- b. If you are Zooming, silence your phone and put it away.
- c. If you are in a room with a TV – turn it off.

**7) USE YOUR MUTE BUTTON WHEN IN LOUD PLACES OR FOR DISTRACTIONS**

- a. Pets barking, children crying, sneezing, coughing, etc. can happen unexpectedly. It’s best if you conference in a private space, but if you can’t find a quiet place, when noises arise **MUTE** your laptop.

**8) REMEMBER TO UNMUTE WHEN SPEAKING**

- a. Follow your instructor’s directions about using the “**raise hand**” icon or chat function to be recognized and to speak, but make sure you have unmuted your device.
- b. Do not speak when someone else is speaking.

**9) REMAIN FOCUSED AND PARTICIPATE IN THE MEETING**

- a. Especially when the camera is on YOU, we can all see your actions. Engage in the meeting. Look at the camera. Listen to instruction. Answer questions when asked.
- b. Do not use the Zoom meeting to meet with your peers or put on a “show” for them.

**10) PAUSE YOUR VIDEO IF MOVING OR DOING SOMETHING DISTRACTING**

- a. Emergencies happen. If you need to leave the room or get up and move about, stop your video.



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.

### **How do I show academic honesty and integrity in an online "classroom"?**

- **KEEP YOUR PASSWORDS CONFIDENTIAL.**
  - 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 that can occur in an online environment:**

- 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 either be deliberate or unintentional.

### 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.

### Anticipated Class Schedule/Calendar

Week	Start Date	Lecture Topic	Labs, Exams, Assignments
1	8/12	T: Syllabus, Introduction TR: The Study of Anatomy	T: Lab Intro and Safety/The Study of Anatomy TR: The Language of Anatomy
2	8/19	T: Terminology TR: Cytology & Histology- Part 1&2	T: The Microscope & The Cell TR: Classification of Tissues Tissue types & function, Microscope slides
3	8/26	T: Histology- Part 3, & 4 The Integumentary System <b><u>TR: EXAM 1: (Intro,Cytology &amp; Terminology + Lab practical)</u></b>	T: The Integumentary system <b><u>TR: EXAM 1: (Intro,Cytology &amp; Terminology + Lab practical)</u></b>
4	9/2	T: The skeletal system I, Bone tissue <b><u>TR: EXAM 2: (Histology/Integumentary + Lab practical)</u></b>	T: Overview of skeleton: structure of bone/cartilage <b><u>TR: EXAM 2: (Histology/Integumentary + Lab practical)</u></b>
5	9/9	T: Skeletal System II TR: Skeletal System III & IV; joints	T: The Axial Skeleton TR: The Appendicular Skeleton & Articulations/Body Movements



6	9/16	<b><u>T: EXAM 3: (Skeletal System + Lab practical)</u></b>  TR: Muscular System I & II	<b><u>T: EXAM 3: (Skeletal System + Lab practical)</u></b>  TR: Muscular system- Microscopic Anatomy of Skeletal Muscle; Gross anatomy of Muscular System (2 day lab)
7	9/23	T: Muscular System III  <b><u>TR: EXAM 4: (Muscular System + Lab practical)</u></b>	M: Muscular system – Use of models; Gross anatomy of Muscular System (2 day lab)  <b><u>TR: EXAM 4: (Muscular System + Lab practical)</u></b>
8	9/30	T: Nervous System, Part 1 &2  TR: Nervous System, Part 2&3	T: Histology Nervous Tissue/Gross Anatomy of the Brain & Cranial Nerves (2 day lab)  TR: Gross Anatomy of the Brain cont'd & The Spinal Cord & Spinal Nerves (2 day lab) -- Dissection Video
9	10/7	T: Nervous System, Part 4  TR: Endocrine System & Blood	M: Special Senses – The eye - <b>Dissection</b> , The ear & equilibrium  TR: Endocrine Glands & Blood Lab
10	10/14	<b><u>T: EXAM 5: (Nervous System, Endocrine + Lab practical)</u></b>  TR: The Heart	<b><u>T: EXAM 5: (Nervous System, Endocrine + Lab practical)</u></b>  TR: Anatomy of the heart- <b>Dissection</b>
11	10/21	T: Blood Vessels  TR: Respiratory System	T: Blood Vessels  TR: Anatomy of Respiratory System
12	10/28	T: Lymphatic System & Immunity  <b><u>TR: Exam 6: (Blood/Heart/Blood Vessels, &amp; Respiratory + Lab practical)</u></b>	T: Lymphatic & Immune System  <b><u>TR: Exam 6: (Blood/Heart/Blood Vessels, &amp; Respiratory + Lab practical)</u></b>
13	11/4	T: Digestive System Part 1  TR: Digestive System Part 2	T: Anatomy of the Digestive System  TR: Open Lab
14	11/11	T: Urinary System  <b><u>TR: Exam 7: (Lymphatic/Digestive + Lab Practical)</u></b>	T: Urinary System – models, handout  <b><u>TR: Exam 7: (Lymphatic/Digestive + Lab Practical)</u></b>
15	11/18	T: Reproductive System  TR: Reproductive System cont'd	T: Anatomy of the Reproductive System, models  TR: Open Lab

***No Classes – Thanksgiving Break***



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16	12/2	T: FINAL LECTURE EXAM (Exam 8:Urinary/Reproductive)	LAB FINAL EXAM - Cumulative Lab Practical
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**\*\*\*Tentative, subject to change without prior notice\*\*\***