



Basic Course Information

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| Semester: | Fall 2025 | Instructor Name: | Alison Mills |
| Course Title & #: | Human Anatomy - BIOL 204 | Email: | alison.mills@imperial.edu |
| CRN #: | 10566 | Webpage (optional): | Canvas |
| Classroom: | 2737 | Office #: | 2786 |
| Class Dates: | 8/11/25 - 12/6/25 | Office Hours: | Tue/Th 10am-11am Wed 3:30pm-4:30pm Or by appointment |
| Class Days: | Tuesdays & Thursdays | Office Phone #: | TBD |
| Class Times: | Lecture 2:40pm-3:45pm Lab 3:55pm-7:05pm | Emergency Contact: | alison.mills@imperial.edu |
| Units: | 4 | Class Format/Modality: | Face-to-Face (On Ground) |

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.

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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

Required Textbook:

This course will use the digitally free open educational resource from Openstax
You can view the book on the web or download a PDF version for free using this link:
<https://openstax.org/details/books/anatomy-and-physiology-2e>

Anatomy and Physiology 2e from OpenStax. Published 4/20/22. Web version last updated 6/15/25. ISBN 978-1-711494-06-7.

Print versions are available for purchase at the IVC Bookstore and for purchase online from the Kendall Hunt publishing company and Amazon.

Updated 8/1/2025



Required Lab Manual:

BIOL 204 Imperial Valley College Lab Manual. Available for purchase at the IVC bookstore
ISBN-13: 9780137782116

Course Requirements and Instructional Methods

This course consists of two lecture and two lab sections every week, with a lab immediately following the lecture. The course is designed so that concepts taught in lecture are applied in a laboratory activity. You must attend both lecture and lab. 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, charts, dissections, and microscopic specimens will be used during lab hours.

Exams: There will be 6 noncumulative exams composed of a lecture and lab practical portion. Each exam will be worth a total of 50 points composed of 30 points for the lecture exam and 20 points for the lab practical portion. At the end of the semester there will be one cumulative exam and lab practical worth 50 points. Exams will be taken in person during regularly scheduled class time. Make sure to bring a writing implement, preferably a pen. Exams must be taken in pen if the student wishes to request a regrade on a question. There will be no makeup exams, except for extreme circumstances (see "Course Policies" below for details).

Lab worksheets: There will be 21 lab worksheets worth 20 points each. These worksheets will be completed during lab sessions and turned in at the end of each lab. Your highest 18 scores will be included in your final grade (meaning, your lowest two (2) handout scores will be dropped). Students will work in groups of 2-3 on lab activities, but EACH student is responsible for completing and turning in their own lab worksheet. Labs are set up the day of the activity so there will be no makeup for lab worksheets except for extreme circumstances (see "Course Policies" below for details).

Online Worksheets: There will be 12 online worksheets worth 10 points each. These worksheets will focus on lecture materials and will be available on Canvas each week. Each worksheet will be due at 11:59pm on the Sunday of each week they are assigned. Dates indicated in the course outline below. Your highest 10 scores will be included in your final grade (meaning, your lowest two (2) online worksheets will be dropped).

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

Spelling and grammar: If spelling or grammar impede my ability to understand your answer you will lose points.

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

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|--|------|
| 6 Noncumulative Exams (50 points each) ----- | 300 |
| 1 Cumulative Final Exam (50 points) ----- | 50 |
| 1 Oral Presentation (50 points) ----- | 50 |
| 18 Lab Worksheets (25 points each) ----- | 450 |
| 10 Online Worksheets (15 points each) ----- | 150 |
| Total Points Possible ----- | 1000 |



Grade Breakdown: **A** 900 - 1000 points, **B** 800 - 899 points, **C** 700 - 799 points, **D** 600 - 699 points, **F** 0 - 599 points

Grade scale adjustments may be made at the discretion of the instructor. However, anyone receiving $\geq 90\%$ of all points is guaranteed at least an A, $\geq 80\%$ of all points at least a B, and $\geq 70\%$ of all points at least a C. The grade cutoffs might fall below these levels but will not be raised above them.

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.

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: plagiarism, copying or attempting to copy from others during an examination or on an assignment, communicating test information with another person during an examination, allowing others to do an assignment or portion of an assignment, using a commercial term paper service, or using work from a previous course and submitting it for credit.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

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.

Updated 8/1/2025



- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Rules:

- No food or drinks during class or lab (including water). We will have occasional breaks for you to step outside of the lab for water and snacks. If you must drink or eat during class, please quietly step outside to do so.
- Wear closed toe shoes and other protective clothing. This is for your safety working in a lab environment.
- Cell phones must be silenced during class. Excessive use of a cell phone in class for nonclass related matters is prohibited and you will be asked to leave. If you must make or take a call, please step outside of the classroom and return promptly when you're finished.
- No talking during lecture portions of class. If you have a question please raise your hand.
- Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Classroom Etiquette:

- Creating a safe and welcoming environment: Everyone in class (instructor included) should strive to create a classroom atmosphere that is respectful, open, and welcoming in which all are invited to learn, prepare, and explore new ideas. We all come from different and diverse backgrounds, interests, and traditions that enrich how we all learn. We all have a collective responsibility to create a scholarly environment where everyone is encouraged to feel comfortable participating and is shown compassion, courtesy, and respect.
- Upholding ethical standards: You as a student should be comfortable sharing your views with your classmates and your professors. It is fine to have open discussion of competing ideas. However, when engaged in discussion remember we are challenging ideas NOT individuals. Therefore, personal attacks and prejudicial remarks are NOT allowed under any circumstance
- Communication is key: My goal is to provide you with the best learning experience while recognizing that everyone has different circumstances and challenges. With this in mind please don't hesitate to let me know what I can do to help you succeed. I'm happy to support you to the best of my ability and/or help direct you to campus resources to help you succeed.

Late Policy and Makeups:

- As stated previously, there will be NO makeup exams and NO makeup lab worksheets, except for extreme circumstances. Work conflicts, family conflicts, travel, or forgetting about the lab assignment DO NOT count as emergencies. In the case of an emergency it is your responsibility to contact the instructor as soon as possible.
 - Examples of extreme circumstances:
 - Medical emergencies or extended medical care, including mental health support
 - Loss of a family member or loved one
 - Exceptions will be at the discretion of the instructor
- Online worksheets may be submitted late but will be docked 5% of the value of the assignment (to max 50% off) per calendar day late unless arrangements to turn it in late were made in advance. The first day late is recorded 5 min after the due date and time. After the 50% limit is reached, you may still turn in the assignment up until the last day of class meetings, for a maximum possible of 50% of the value of the assignment.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.



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 | Lecture Topic & Reading | Lab Topic & Lab Manual | Online Worksheet Due Dates |
|----------------------------------|--|--|----------------------------|
| Week 1 August 11-15 | T: Syllabus & Introduction R: An Introduction to the Human body - Chapter 1 | T: Lab Intro & Safety R: The Language of Anatomy - Chapter 1 | No worksheet week 1. |
| Week 2 August 18-22 | T: The Cellular Level of Organization - Chapter 3 R: The Cellular Level of Organization - Chapter 3 | T: The Microscope R: The Cell | August 24 11:59pm |
| Week 3 August 25-29 | T: The Tissue Level of Organization - Chapter 4 R: Exam 1: Chapters 1,3,4,5 & Lab practical | T: Classification of tissue types, Microscope slides R: Exam 1: Chapters 1,3,4,5 & Lab practical | August 31 11:59pm |
| Week 4 September 1-5 | T: The Integumentary System - Chapter 5 R: The Skeletal System - Chapters 6-9 | T: The Integumentary System R: Overview of skeleton: structure of bone/cartilage | September 7 11:59pm |
| Week 5 September 8-12 | T: The Skeletal System - Chapters 6-9 R: The Skeletal System - Chapters 6-9 | T: The Axial skeleton R: The Appendicular Skeleton | September 14 11:59pm |
| Week 6 September 15-19 | T: Exam 2: Chapters 6-9 & Lab practical R: The Muscular System: Chapters 10-11 | T: Exam 2: Chapters 6-9 & Lab practical R: Muscular system - axial. Use of models; Gross anatomy of muscular system | September 21 11:59pm |
| Week 7 September 22-26 | T: The Muscular System: Chapters 10-11 R: The Nervous System - Chapters 12-16 | T: Muscular system continued R: Gross Anatomy of the Brain & Cranial Nerves | September 28 11:59pm |
| Week 8 September 29-October 3 | T: Exam 3: Chapter 10-12 & Lab Practical R: The Nervous System - Chapters 12-16 | T: Exam 3: Chapter 10-12 & Lab Practical R: Gross Anatomy of the Brain & Cranial Nerves - Dissection | October 5 11:59pm |
| Week 9 October 6-10 | T: The Nervous System - Chapters 12-16 R: The Endocrine System - Chapter 17 | T: Special Senses- The eye - Dissection The ear & equilibrium R: Endocrine handout and blood lab | October 12 11:59pm |

| Week | Lecture Topic & Reading | Lab Topic & Lab Manual | Online Worksheet Due Dates |
|---------------------------|--|--|---------------------------------------|
| Week 10 October 13-17 | T: Exam 4: Chapters 13-17 & lab practical R: The Cardiovascular System - Chapter 18-20 | T: Exam 4: Chapters 13-17 & lab practical R: Anatomy of the heart - Dissection | October 19 11:59pm |
| Week 11 October 20-24 | T: The Cardiovascular System - Chapter 18-20 R: The Respiratory System - Chapter 22 | T: Blood vessels R: Anatomy of the respiratory system | October 26 11:59pm |
| Week 12 October 27-31 | T: Exam 5: Chapters 18-21, 23 & Lab practical R: The Lymphatic and Immune System - Chapter 21 | T: Exam 5: Chapters 18-21, 23 & Lab practical R: The Lymphatic System and Immune Response | November 2 11:59pm |
| Week 13 November 3-7 | T: The Digestive System - Chapter 23 R: The Urinary System - Chapter 25 | T: Anatomy of the digestive system R: Urinary system - models, handout | November 9 11:59pm |
| Week 14 November 10-14 | T: The Reproductive System - Chapter 27 R: Exam 6: Chapters 22, 24-26 & Lab practical | T: Anatomy of the Reproductive Systems R: Exam 6: Chapters 22, 24-26 & Lab practical | No worksheet week 14 |
| Week 15 November 17-21 | T: Development and Inheritance - Chapter 28 R: Presentations | T: Study session, presentation prep, no lab R: Presentations | No worksheet week 15 |
| BREAK November 24-28 | Thanksgiving Break. No class. | Thanksgiving Break. No class. | Thanksgiving Break. No worksheet due. |
| Week 16 December 1-6 | T: Exam Review session R: Final Cumulative Exam & Lab Practical | T: Open lab, models R: Final Cumulative Exam & Lab Practical | Final exams. No worksheet due. |

Subject to change without prior notice