

### Basic Course Information

Semester:	<b>Fall 2018</b>	Instructor Name:	<b>Dr. Steven Crum</b>
Course Title & #:	<b>Human Anatomy – BIOL204</b>	Email:	<b>steven.crum@imperial.edu</b>
CRN #:	<b>11361</b>	Office #:	<b>2789.1</b>
Classroom:	<b>2735 for lecture 2736 for lab</b>	Office Hours:	<b>MTWR 12 pm to 1 pm or by appointment</b>
Class Dates:	<b>August 13 to December 5</b>	Office Phone #:	<b>760-355-6438</b>
Class Days:	<b>Monday and Wednesday</b>		
Class Times:	<b>1:00 PM to 2:05 PM for lecture 4:20 PM to 7:30 PM for lab</b>		
Units:	<b>4</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 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. (CSU) (UC credit limited. See a counselor.)

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

**Course 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:

1. Display critical thought related to topics in human anatomy using written forms of expression and examination. (ILO2, ILO3, ILO4).
2. Display knowledge of anatomy and dissection competency using cat specimens as subjects. (ILO2, ILO3).
3. Display critical thought related to topics in human anatomy as it applies to a global perspective. (ILO2, ILO5).
4. 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, 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 classification, structure, location and functions of four major types of tissues.
4. Describe the structural and functional characteristics of the integumentary system.
5. Describe the gross features of the skeletal system and the process of bone formation, identify the bones of the skeleton and their important surface markings, and describe the structural and functional classifications of joints.
6. Describe the components and the microscopic anatomy of muscular system, describe how the skeletal muscles provide specific movements of the body, and identify the principal skeletal muscles of the body.
7. Describe the major surface features of the head, neck, trunk, and upper and lower extremities.
8. Describe characteristics and functions of the blood plasma and the formed elements of the blood.
9. Describe and contrast the general flow of blood through the systemic and pulmonary circulations, the structural and functional features of the heart, and the structure and functions of blood vessels and identify the major vessels in the body.
10. Trace lymphatic circulation and describe the structure and functions of lymphatic tissues and organs.
11. Describe the organization of the nervous system, and contrast the histological characteristics and functions of neurons and neuroglia, describe the anatomy of the spinal cord, the reflexes, and the origin, composition, and branches of spinal nerves and nerve plexuses.
12. Identify the principal parts of the brain and cranial nerves, and explain the formation and circulation of cerebrospinal fluid, and describe the components of sensations, major characteristics of sensory receptors and the sensory pathways.
13. Describe the location, histology, and functions of the major endocrine glands.
14. Describe the structures of the respiratory system and the mechanics of pulmonary ventilation, the structure and functions of the organs of the gastrointestinal tract and the accessory organs of digestion, the urinary system and the male and female reproductive systems.
15. Demonstrate dissection skills using animals and/or a human cadaver.

## Textbooks & Other Resources or Links

### Required:

- Saladin, K. S. 2017. Human Anatomy, 5th Ed. McGraw-Hill Company, ISBN 978-0-07-340370-0
- Lab manual: Integrate- Custom library for Anatomy and Physiology. The Pearson Learning Solutions, 2014. ISBN 13: 978-1-269-76300

## Course Requirements and Instructional Methods

This course consists of two lecture and two lab sections every weeks. The course is designed so that concepts taught in lecture are applied in a laboratory.

**Exams:** The course will include four noncumulative lecture exams, one lab "midterm" exam, one cumulative lecture final and one cumulative lab final.

**In-class assignments and mini-quizzes:** All lectures include in-class assignments and mini-quizzes. While you will not be graded on attendance, you will be graded on these in-class activities.

These activities provide you with low-stakes opportunities to assess your knowledge and study skills in the course.

**Lab assignments:** There will be 23 labs throughout the semester. At the end of each lab you are responsible for turning in a completed lab worksheet worth eight points each.

**Lab mini-quizzes:** At the beginning of each lab there will be two question quizzes that are 2 points each. One question will cover material from the previous week's lab and the other will cover the lab introduction of the current week's lab. There will be no lab mini-quiz for the first week lab. The mini-quiz grade will be added to your lab assignment grade (8 points for lab assignment + 2 points for mini-quiz = 10 points total)

**Homework:** One homework set is due via paper copy every at the beginning of lecture every Wednesday except when noted in the Homework Schedule. Homework assignments will not cover every topic, so I encourage you to complete book practice problems not assigned.

### Course Grading Based on Course Objectives

Lecture Exams	4 x 50 points	200 points
Lecture Final	1 x 100 points	100 points
Lab Midterm Exam	1 x 50 points	50 points
Lab Final	1 x 50 points	50 points
Homework	12 x 10 points	120 points
In-class assignments/mini-quizzes	25 x 2 points	50 points
<u>Labs</u>	<u>25 x 10 points</u>	<u>250 points</u>
Total:		<b>820 points</b>

Grades are assigned using the following percentage cutoffs:

A ≥ 90%; B ≥ 80%; C ≥ 70%; D ≥ 60%; F < 60%

### 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.

## 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. 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](#).

## 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.

- **CANVAS Learning Management System.** Canvas is Imperial Valley College's main Learning Management System. To log onto Canvas follow the "Canvas" link under the "Home" menu on Imperial.edu. 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 therapy are provided to currently enrolled students. Contact the IVC [Mental Health Counseling Services](#) at 760-355-6196 in Room 2109 for 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 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.

**Anticipated Class Schedule**

Lecture topics tentative, subject to change without prior notice. Exams will not change dates.

Week	Lecture			Lab	
	Lecture date	Lecture topic	Textbook Readings	Lab date	Laboratory topic
1	8/13	Mon.: The Study of Human Anatomy	Ch. 1	8/13	Mon.: Lab Intro and Safety
	8/15	Wed.: Cytology—The Study of Cells	Ch. 2	8/15	Wed.: The Language of Anatomy (Lab 1)
2	8/20	Mon.: Histology—The Study of Tissues	Ch. 3	8/20	Mon.: Classification of Tissues (Lab 2)
	8/22	Wed.: The Integumentary System	Ch. 5	8/22	Wed.: The Integumentary System (Lab 3)
3	8/27	Mon.: The Skeletal System I	Ch. 6	8/27	Mon.: Overview of the Skeleton (Lab 4)
	8/29	Wed.: The Skeletal System II	Ch. 7	8/29	Wed.: The Axial Skeleton (Lab 5)
4	9/3	Mon.: <b>Holiday no class</b>		9/3	Mon.: <b>Holiday no class</b>
	9/5	Wed.: The Skeletal System III and IV	Ch. 8 and 9	9/5	Wed.: The Appendicular Skeleton (Lab 6)
5	9/10	Mon.: <b>Exam I</b>		9/10	Mon.: Case study #1
	9/12	Wed.: The Muscular System I, II, and III	Ch. 10, 11 and 12	9/12	Wed.: Gross Anatomy of the Muscular System (Lab 7)
6	9/17	Mon.: The Nervous System I, II, and III	Ch. 13, 14 and 15	9/17	Mon.: Gross Anatomy of the Brain and Cranial Nerves (Lab 8)
	9/19	Wed.: The Nervous system IV and V	Ch. 16 and 17	9/19	Wed.: Special Senses: Anatomy of the Visual System (Lab 9)
7	9/24	Mon.: <b>Exam II</b>		9/24	Mon.: Special Senses: Hearing and Equilibrium (Lab 10)
	9/26	Wed.: The Circulatory System I	Ch. 19	9/26	Wed.: Blood (Lab 11)
8	10/1	Mon.: The Circulatory System II	Ch. 20	10/1	Mon.: Anatomy of the Heart (Lab 12)
	10/3	Wed.: The Circulatory System III	Ch. 21	10/3	Wed.: Anatomy of Blood Vessels (Lab 13)
9	10/8	Mon.: The Lymphatic System and Immunity	Ch. 22	10/8	Mon.: Case study #2
	10/10	Wed.: Case study #3		10/10	Wed.: Study session, no lab
10	10/15	Mon.: Study session		10/15	Mon.: <b>Lab Exam</b>
	10/17	Wed.: The Respiratory System	Ch. 23	10/17	Wed.: Anatomy of the Respiratory System (Lab 14)
11	10/22	Mon.: <b>Exam III</b>		10/22	Mon.: In-class activities, no lab
	10/24	Wed.: The Digestive System	Ch. 24	10/24	Wed.: Anatomy of the Digestive System (Lab 15)

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<b>12</b>	10/29	Mon.: The Reproductive System	Ch. 26	10/29	Mon.: Anatomy of the Reproductive System (Lab 16)
	10/31	Wed.: Review of Muscular System and in-class activities		10/31	Wed.: Dissection and Identification of Cat Muscles (Lab 17)
<b>13</b>	11/5	Mon.: The Endocrine system	Ch. 18	11/5	Mon.: Identification of Selected Endocrine Organs of the Cat (Lab 18)
	11/7	Wed.: <b>Exam IV</b>		11/7	Wed.: Dissection of the Blood Vessels of the Cat (Lab 19)
<b>14</b>	11/12	Mon.: <b>Holiday no class</b>		11/12	Mon.: <b>Holiday no class</b>
	11/14	Wed.: Review of Respiratory System and in-class activities		11/14	Wed.: Dissection of the Respiratory System of the Cat (Lab 20)
	11/19-24 <b>Thanksgiving break no class</b>				
<b>15</b>	11/26	Mon.: Review of Digestive System and in-class activities		11/26	Mon.: Dissection of the Digestive System of the Cat (Lab 21)
	11/28	Wed.: Review of Reproductive System and in-class activities		11/28	Wed.: Dissection of the Reproductive system of the Cat (Lab 22)
<b>16</b>	12/3	Mon.: The Urinary System	Ch. 25	12/3	Mon.: Dissection of the Urinary System of the Cat (Lab 23)
	12/5	Wed.: <b>Lecture and Lab Final Exams</b>		12/5	Wed.: <b>Lecture and Lab Final Exams</b>

The last day to drop the course with a 'W' is 11/3



## Homework Schedule

All homework is due at the beginning of lecture every Wednesday except when noted in the Homework Schedule. I recommend that you complete all end of chapter questions, but this is not required.

**Example of a properly formatted homework question (Write question and correct answer):**

**7. The amount of DNA in a Cell doubles during**

**D. the S phase**

Week	Due date	Assignments
1		No Homework
2	8/22	Ch. 3 and 4 Testing Your Recall (40 problems total)
3	8/29	Ch. 6 and 7 Testing Your Recall
4	9/5	Ch. 8 and 9 Testing Your Recall
5	9/12	Ch. 10 and 11 Testing Your Recall
6	9/19	Ch. 13 and 17 Testing Your Recall
7	9/26	Ch. 19 Testing Your Recall, Building Your Medical Vocabulary, and True or False
8	10/3	Ch. 20 and 21 Testing Your Recall
9	10/10	Ch. 22 Testing Your Recall, Building Your Medical Vocabulary, and True or False
10	10/17	Ch. 23 and 24 Testing Your Recall
11		No Homework
12	10/31	Ch. 26 Testing Your Recall, Building Your Medical Vocabulary, and True or False
13	11/7	Ch. 18 Testing Your Recall, Building Your Medical Vocabulary, and True or False
14		No Homework
<b>Thanksgiving break no class</b>		
15	11/28	Ch. 25 Testing Your Recall, Building Your Medical Vocabulary, and True or False
16		No Homework

## Study tips and advice

### Suggested study approaches for Lecture:

1. Come to every class and participate.
2. Read textbook chapters before class. They are relatively short and informative.
3. Do the questions at the end of each chapter. I will not grade these, but it is a good way to get ahead.
4. Review notes and slides on a weekly basis. Save yourself the stress of cramming the night before the exam, and study on a continuous basis.
5. Come to office hours. Ask me any questions, even if you think they are "stupid questions." I won't judge!
6. Learning happens through discussion. Whenever we set aside time for group discussions take advantage of them.
7. Don't be discouraged by one bad grade, keep the larger picture in mind.

Time commitment: 1.5-2 hours of studying for every hour of class (9-12 hours/week). Some of that time should be reading the book, and the rest reviewing notes.

### Suggested study approaches for Lab:

1. Come to every lab and be active.
2. Read the lab intro before coming to class. They are short!
3. Make sure you know how to do all learning objectives listed at the beginning of the lab by the end of the lab. If you are having trouble, ask me in class, at office hours, or by email.
4. When in doubt on a lab question, ask me. I may not answer you right away, but I will lead you to the answer. By not giving you the answer right away it sticks with you better.
5. Review what you did in the lab after every lab.
6. Learning happens through discussion. Whenever possible talk things through with your lab mates.

Time commitment: 1 hour of studying for every hour of lab (6 hours/week). Some of that time should be reading the lab book, and the rest reviewing lab material.

### Key points:

**Learning is not entirely about what to think, but how to think. If you are not sure of the point of a learning activity, ask me. I will be happy to fill you in on the learning strategies and intended outcomes.**

**People (students, teachers, friends, ect.) will try to scare you into thinking that you will fail. I've seen many highly capable students succumb to fear and intimidation.**