

tdjones@csustan.edu  
209.667.3488

Dr. Terry D. Jones

N 267  
W 9-11

### **Course Description**

This course is an introduction to gross, microscopic, and functional anatomy of the human body. BIOL 1010/1020 or BIOL 1050 are recommended prerequisites for this course. The lecture and lab are combined into a single grade. While lecture and lab are related, the material covered in each may differ in content and/or focus.

It is presumed that you have a fundamental understanding of biology from previous courses. If not, you should review cell structure and function (the first two or three chapters in most anatomy or anatomy and physiology textbooks).

### **Course Objectives**

- Understand the organization of the human body, the major features and interrelationships of the organ systems, and the relationship of structure and function
- Visualize the internal anatomy, both gross and microscopic, and relate this to surface features
- Understand lectures, texts, articles, and/or clinical demonstrations in subsequent classes
- Develop care in verbal expression, especially the precise use of terminology
- Understand the biological significance of animal structure

### **Required Texts/Materials**

- OpenStax. *Anatomy and Physiology*, OpenStaxCNX (available at no cost in web view or PDF or at low-cost print, Kindle or IBook versions at CNX.org) or other college Human Anatomy or Human A&P text.
- Jones, T. D. *Laboratory Manual for Human Anatomy*, Fall 2017-Summer 2018 (available on the course Blackboard page; printed copy required for lab)
- Dissection Kit: mall (blunt) probe, sharp/blunt scissors, iris scissors, specimen forceps, fine or tissue forceps, dissection knife, and scalpel handle with blades (most kits with 20 or more pieces are sufficient)
- Gloves (nitrile gloves, rather than latex, are recommended)

### **Suggested Supplemental Resources**

- Kreiger, P. A. 2017. *A Visual Analogy Guide to Human Anatomy*, 4e. Morton.
- Sebastiani, A. M. and D. W. Fishbeck. 2005. *Mammalian Anatomy: The Cat*, 2e. Morton.

### **Course Information and Communication**

Information for the course (syllabus and other relevant material) can be found on Blackboard (blackboard.csustan.edu). Communication regarding the course will be done via Blackboard and/or email; it is your responsibility to check the course Blackboard page and your university email account regularly.

If you need to contact me, it is best to use email rather than telephone. Before emailing (or calling), re-read this syllabus as the answers to the majority of questions are here.

### **Course Drop and Withdrawal Policy**

The drop and withdrawal policies for this course are the same as the university policies: "...dropping courses after the Enrollment Census Date will not be allowed. After the Enrollment Census Date, students are responsible for completion of the course(s) in which they are enrolled...Withdrawals after the Enrollment Census Date and prior to the last twenty percent of instruction may be assigned only for serious and compelling reasons." 19 September is the Enrollment Census Date.

### **Lectures**

Lectures are organized with the presumption that you have at least scanned the material in the text related to the topic before class (see Tips for Success). Slides are used to supplement the lecture and generally illustrate some aspect of human anatomy (and give students something to look at besides me). Lecture slides typically contain

images with few words; you are expected to take notes on what is said. If the lecture material is unclear or you feel I am covering the material too fast, feel free to stop me by asking questions. Because students may have a variety of texts and images used in lecture may come from a multiple sources, the lecture slides will be available on the course Blackboard page. It is recommended that you print the slides prior to class.

### **Labs**

Labs are designed to allow students to actively interact with materials that aid in a more complete understanding of anatomy (*e.g.*, microscopic slides, models, and dissection materials). The lab manual is written as a guide to better understand human anatomy and as such it is imperative that you carefully read and follow the instructions. You must bring a hard copy of the lab manual to every lab. If you do not bring a printed manual to lab, you will be asked to leave.

Dissection is a required component of this course. Students who do not actively participate in dissection will earn a failing grade (F) regardless of the points earned on exams or quizzes.

### **Lab Safety**

Each student must watch the tutorial on the BioLab Safety course on Blackboard (BioLabSafety-2018-2019-FL: BioLabSafety) and pass the associated quiz with 100% correct. Failure to meet this requirement by 8:00 am on Thursday, 06 September will result in disenrollment from the course.

### **Attendance**

Regular attendance in lecture and lab are vital to your success in this course (see Tips for Success). You are expected to arrive on time and stay until the end. Attendance requires your physical presence as well as your attention and active participation. See the *Exams and Quizzes* section of the syllabus regarding absences in those cases.

### **Recording Policy**

The use of audio recorders or cameras (including cell phone, tablet, and lap top cameras) is not permitted during lecture or lab; including taking pictures of materials (models, specimens, microscopic images, etc.) in lab. An exception is made for students who are registered with Disability Resource Services and specifically approved for recording. If you do not intend to comply with this policy, please disenroll from this class.

### **Students with Disabilities**

Students with documented disabilities need to make an appointment to discuss specific adaptations and/or accommodations as soon as possible.

### **Open Lab**

The anatomy lab (N224) will be available for study/review on Fridays from 9:00 am -3:00 pm (except when practical exams are scheduled) and during normal lab times when no labs are scheduled; see Course Schedule. It is highly recommended that you make use of Open Lab times. However, inappropriate use of the lab or destruction/loss of lab materials during open lab will result in cancellation of this privilege for the duration of the term for all students.

### **Exams and Quizzes**

Exams and quizzes are designed with the course objectives in mind. The questions will be written in technical and standard English (like text books and lab manual). Because the information in this course cannot be divided into discreet units, all exams are cumulative to some extent. Unless otherwise stated, exams will begin at the beginning of the scheduled class time. Exam scores will be posted on the course Blackboard page after they are graded.

Anatomical knowledge is demonstrated when you can identify a specific structure, when you can accurately describe a particular structure, and when you can explain the interactions of structures. Accordingly, this will be the basis for both lecture and lab exams. Correct spelling and good penmanship is necessary for effective communication and poor spelling or poor penmanship is a sign of intellectual immaturity and carelessness. Therefore, spelling errors will result in lost points and illegible answers will receive no credit.

Don't put off reviewing for exams; it is best to start studying for the first (and final) exam before the first day of class. See the Course Schedule for exam dates and Tips for Success for suggestions on studying, etc.

### Lecture Exams (400 points)

There will be 2 lecture exams (100 points each) and a cumulative final exam (200 points); see Course Schedule for dates. An exam form will be supplied; you only need bring a pencil or pen (blue or black).

Be sure to arrive early for the exam. No exams will be handed out after the exam has begun. If you are late, you will not be able to take the exam and you will earn a zero for that exam. You may not leave during exams; take care of all necessary business beforehand. There are no makeup or early lecture exams. If you must miss a lecture exam and the absence is excused, it will be replaced by the final exam percentage. Subsequent missed exams will earn no points and cannot be replaced regardless of the reason for the absence.

Lecture exams will focus on material covered in lecture, but overlaps with material in lab. All topics covered in lecture are important to understand human anatomy and thus exam questions will randomly survey the material presented. The final exam will cover material from the entire term (previous questions will not be purposefully re-used).

Exam questions will be fill-in-the-blank or short answer; this is not grade school and there will not be a word bank. 1 point will be deducted for every two spelling errors. Incorrect use of plural or singular forms will not be counted as spelling errors, but errors in which another word is spelled correctly will be marked wrong (*e.g.*, humorous instead of humerus). Illegible answers will not be graded and will earn zero points. Exams will not be returned but exam answer sheets will be returned. You may look over the exam questions during office hours (this is highly recommended). You will have one week after exam answer sheets have been returned to dispute your scores; after that, no scores will be changed.

The final exam will be 50-60% cumulative; the remained will cover material since the previous exam. The score on this exam will replace the lowest (percentage) previous exam (if it is lower than the final exam score).

### Lab Practical Exams (350 points)

There will be four lab practical exams (see Course Schedule). A practical exam form will be supplied. You only need bring a pencil or pen (blue or black), but you may also want to bring gloves and a probe. Anything included in the lab manual (unless specifically omitted) may be included on these exams. As a way of testing your understanding, practical exams may include material that you may not have seen in lab.

For each practical exam, there will be 2 questions at each station; each question will be worth 1 point. You will have 90-seconds to answer the questions at each station. After 90 seconds, you will be instructed to move to the next station in sequence. When you have been to each station, you will have 3 minutes to go back to 2 or 3 stations. 1 point will be deducted for every two spelling errors. Incorrect use of plural or singular forms will not be counted as errors, but errors in which another word is spelled correctly (*e.g.*, humorous instead of humerus, ileum instead of ilium) will be marked wrong and not as a spelling error. Images of each station will be posted on Blackboard after the practical exams have been completed.

Students must sign-up for a time to take each lab exam; an email with a link a link to sign up will be sent out at least one week prior to the exam. Students will not be allowed to enter the room once the practical exam has begun. There no make-up lab practical exams given. If a lab practical exam is missed and the absence is excused, the score (percentage) of the lowest practical exam taken will replace the missed practical. Subsequent missed exams will earn no points and cannot be replaced regardless of the reason for the absence.

The last practical exam will be 50-60% cumulative; the remained will cover the material since the last practical exam. The score on this practical exam will replace the lowest (percentage) previous exam (if it is lower than this score).

### Lab Quizzes (50 points)

A quiz over the day's material will be given at the end of the lab period; anything in the lab manual (unless specifically omitted) may be included in the quiz. Quiz questions may be written, verbal, etc., but will generally be

like those described in the last section of each chapter of the lab manual. Each quiz is worth 5 points. You will earn 1 point for taking the quiz and the remaining points for correct answers. Scores will be posted on Blackboard.

Students who do not attend lab from the beginning cannot take the quiz. Students who leave without taking a quiz or who do not actively participate throughout the lab period will earn no points. Quizzes cannot be made up.

### **Grading**

Only letter grades can be earned for this course; CR/NC grades are not available.

Your grade in the course will be determined by your combined performance on exams and quizzes in lecture and lab. All scores earned during the semester will be posted on the course Blackboard page. At the end of the term, you may access your course grade from my.csustan.edu. Scores and/or grades will not be given out via e-mail or phone.

Dissection is a necessary component to the lab. Students who do not actively participate in dissection will receive a failing grade (F) for the course regardless of the number of points earned during the semester.

A total of 800 points are available (400 from lecture exams and 400 from lab practical exams and quizzes); there will be no other points or assignments available beyond those mentioned herein. The use of +/- grades is at the instructors' discretion. Letter grades will be assigned as follows unless natural breaks determine a downward shift in the scale:

A	≥ 680 points (85%)
B	≥ 600 points (75%)
C	≥ 480 points (60%)
D	≥ 400 points (50%)
F	< 400 points <i>or</i> lack of active participation in dissection
WU	< 400 points <i>and</i> the final exam not taken

Once assigned, grades will not be changed unless errors in grade calculations occurred.

Historically, most student scores have not increased significantly after the first exam or practical. If your scores on the first exam and/or practical are below the percentage for the grade you hope to achieve, you should consider your continued enrollment or make drastic changes to your approach to this course.

### **Personal Integrity**

Behavior that is not consistent with the Student Conduct Code—including any form of academic dishonesty—will result in immediate expulsion from the course, a failing grade, and the matter will be referred to the Office of Student Judicial Affairs. Behavior that interferes with the instructor's ability to teach or the ability of students to benefit from instruction will not be tolerated. Such behaviors will be dealt with as severely as university regulations allow.

### **Implied Contract**

This syllabus serves as a contract between you and the instructor. Your continued enrollment in this class denotes your understanding of, and agreement with, the material herein. You are expected to print this syllabus, read it carefully, and keep it in your notebook to refer to during the term.

***Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.***

Kofi Annan, UN Secretary General 1997-2006  
2001 Nobel Peace Prize

### ***Tips for Success***

Students often ask (generally after the first exam) what they should do to be successful in this course; I invariably answer with the following:

- Remember that this is a college course; techniques that worked in high school are unlikely to be effective.
- Strive for understanding: regardless of the preconceptions of most people, this class is not about mere memorization of structures.
- Don't waste time making flashcards and highlighting—these are inefficient and ineffective practices.
- Schedule a minimum of 6 hours/week outside of class for preview and review of materials.
- Read the relevant material before lecture and lab so that you are familiar with terms and concepts.
- Attend and actively participate in lecture and lab.
- Take good notes in lecture. Write down the ideas and concepts discussed. Don't try to write every word said or just copy the text that may be on the slide. Use abbreviations.
- Take notes using a pen or pencil, not a keyboard.
- As soon after class as possible write down what you can recall from lecture. Compare this with your notes to discover what you don't know.
- Re-write or type (don't just re-copy) your lecture notes after the lecture. Use your own words. Integrate information from lecture and texts. Store your notes in the cloud so you can access them anytime and anywhere.
- Don't study for the exam you expect; study for a more difficult exam. If the level of your knowledge and understanding exceeds the exam, you are guaranteed to do well.
- When there are topics you don't understand, refer to your texts for clarification and if that doesn't work, mark the section in your notes and ask as soon as possible.
- Review your lecture notes daily starting with the current topics and weekly starting from the first page and going to the last page. Make corrections or additions as needed to increase clarity or completeness.
- Choose a topic and write what you know, then compare that to your notes to find out what you don't know. Alternately, explain the topic to a classmate.
- Limit study sessions to no more than one hour; many short (10- to 30-minute) sessions are more useful than fewer long ones. Take short breaks between sessions.
- If you encounter words that are unfamiliar, look them up in the index and glossary in the text or a dictionary as soon as possible; the word roots in the back of the lab manual are also helpful in understanding terms.
- When working in the lab refer only to the lab manual; if you are confused or the text is unclear, reread the section. Reading and following instructions gives context and understanding that cannot be gleaned from images. Students often think that pictures are necessary to accurately dissect and identify structures: this is incorrect.
- Re-read the manual when reviewing outside of lab. When doing so, try to envision the material. If you cannot, use supplemental materials and images to help and then return to the lab manual.
- Review weekly with other students who are also taking the time to study and review.

Following these tips will allow you to learn more easily and more efficiently. Effective study habits will also make you more confident about your understanding, which translates into higher exam scores. Of course, choosing to do otherwise has the opposite effect.

***The mark of higher education isn't the knowledge you accumulate in your head. It's the skills you gain about how to learn.***

Adam Grant, psychologist and author

### COURSE SCHEDULE

DATE	LECTURE TOPIC	CH (SEC)	DATE	LAB TOPIC	CH (SEC)
23 Aug	Introduction; Tissues	Manual <b>Preface, 1</b> ; Text <b>1</b> (1, 2, 6), <b>4</b>	23 Aug	<i>No Labs</i>	<b>Preface, 1</b>
28 Aug			28/30 Aug	Microanatomy	<b>2</b>
30 Aug	Skeletal	<b>6</b> (1-5), <b>9</b> (1-5)	04 Sep	<i>No Labs</i>	
04 Sep			06/07 Sep	<b>Practical 1</b>	
06 Sep					
11 Sep	Muscles	<b>10</b> (1-6), <b>11</b> (1)	11/13 Sep	Skeleton: Bone Gross Anatomy, Axial Skeleton	<b>3</b> (I, IIA)
13 Sep					
18 Sep			18/20 Sep	Skeleton: Appendicular Skeleton, Articulation	<b>3</b> (IIB, III)
20 Sep					
25 Sep	<b>Exam 1</b>				
27 Sep	Circulatory	<b>19</b> (1-3), <b>20</b> (1-2), <b>21</b> (1)	25/27 Sep	Muscles: Microanatomy, Muscles of the hind limbs, Muscles of the forelimbs (Axioscapular muscles and superficial shoulder muscles)	<b>4</b> (I - IVA)
02 Oct			02/04 Oct	Muscles: Muscle of the forelimbs (cont.), trunk muscles, head & neck muscles	<b>4</b> (IVA - IVD)
04 Oct					
09 Oct	Respiratory	<b>22</b> (1-3, 6)	09 Oct	<i>No Labs</i>	
11 Oct			11/12 Oct	<b>Practical 2</b>	
16 Oct	Digestive	<b>23</b> (1-7)			
18 Oct			16/18 Oct	Circulatory	<b>5</b>
23 Oct	Urinary	<b>25</b> (2-4, 9)	23/25 Oct	Respiratory and Digestive	<b>6</b>
25 Oct					
30 Oct			<b>Exam 2</b>		
01 Nov	Reproductive	<b>27</b> (1-3)	30 Oct/ 01 Nov	Urinary	<b>7</b> (I)
06 Nov			06/08 Nov	Reproductive	<b>7</b> (II)
08 Nov	<i>No Class</i>				
13 Nov	Nervous	<b>12</b> (1-3, 5), <b>13</b>	13/15 Nov	<i>No Labs</i>	
15 Nov					
20 Nov			19/20 Nov	<b>Practical 3</b>	
22 Nov	<i>Thanksgiving (Campus Closed)</i>		22 Nov	<i>Thanksgiving (Campus Closed)</i>	
27 Nov	Nervous	<b>14</b> , <b>15</b> (1-3)	27/29 Nov	Nervous: Microanatomy, CNS	<b>8</b> (I, II)
29 Nov					
04 Dec	Integument	<b>5</b> (1-3); Manual <b>9</b>	04/06 Dec	Nervous: PNS, Special Senses	<b>8</b> (III, IV)
06 Dec			Human Biology	Manual <b>10</b>	
11 Dec	<i>Reading Day (No classes)</i>		10/11 Dec	<b>Practical 4</b>	
13 Dec	<b>Final Exam (8:30-10:30)</b>				

The lecture topic schedule is provisional and will likely change, but it will follow the sequence listed. Lecture exams will reflect material covered up to the exam date. The lab schedule and exam/practical dates will only be changed if the instructor deems it necessary.

***“No knowledge can be more satisfactory to a [person] than that of [their] own frame, its parts, their functions and actions.”***  
--Thomas Jefferson