ZOOL 2250 **Human Anatomy** **Fall 2019**

Dr. Terry D. Jones

E-mail: tdjones@csustan.edu Office: N 267

Phone: 209.667.3488 Office hours: W 9:30-11:00

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 cell structure and function from previous biology courses. If not, you should review the appropriate sections of your textbook (usually the first two or three chapters in most anatomy or anatomy and physiology textbooks).

Course Objectives

- Identify the organ systems, major organs, and important parts of organs that comprise the human body
- 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
- 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 (Web view or a PDF version is available at no cost at CNX.org. Inexpensive print or digital versions are available at CNX.org) or other university-level Human Anatomy or Human A&P textbook.
- Jones, T. D. *Laboratory Manual for Human Anatomy*, Fall 2019 (available at FedEx 1451 Geer Rd., Turlock). Previous versions are not acceptable; students that do not have a printed copy of the correct lab manual at the first lab meeting will be asked to leave and may be dropped from the course.
- 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 10 or more pieces are sufficient)
- Gloves (nitrile gloves, rather than latex, are recommended)

Course Information and Communication

Information for the course (syllabus, course, schedule, exam scores, 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 appropriate material 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. 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 and bring them with you.

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).

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 in the course.

Lab Manual

The lab manual is written as a guide to better understand 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. You are expected to have read the appropriate parts of the lab manual before arriving to lab.

Lab Safety

Each student must watch the tutorial on the BioLab Safety course on Blackboard (BioLabSafety-2019-2020-FL: BioLabSafety) and score 100% on the associated quiz. Failure to meet this requirement by 11:59 pm Friday, 30 August will result in disenrollment from the course.

Attendance

Regular attendance is 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 in lecture and lab.

Recording (Audio, Video, Photo) Policy

The use of recorders or cameras (including cell phone, tablet, and lap top cameras) is not permitted during lecture or lab. This includes taking pictures of materials (models, specimens, microscopic images, etc.). An exception is made during lectures 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 drop from this course.

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 (N 224) will be available for study/review on Fridays from 9:00 am -3:00 pm. 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 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. 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). Only terms in bold in the lab manual will be accepted; others will be marked incorrect and will receive no points. Illegible answers will not be graded and will earn zero points.

Make up exams will not be given. If an exam is missed and the absence is excused, the grade will be based on fewer total points using the same grade scale. Absences will only be excused for documented for serious and compelling reasons. Only one excused absence for an exam will be allowed. Students who miss more than one exam are advised to drop or withdrawal from the course.

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 (200 points)

There will be 2 lecture exams (50 points each) and a final exam (100 points) that will include new and previous material; see Course Schedule for dates. An exam form will be supplied; you only need bring a pencil or pen (blue or black). Exam questions will be fill-in-the-blank and/or short answer; this is not grade school and there will not be a word bank.

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.

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).

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.

Lab Practical Exams (200 points)

There will be two 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. The end of each chapter of the manual describes the types of questions that will be asked covering that material. As a way of testing your understanding, practical exams may include material that you may not have seen in lab.

Students must sign-up for a time to take each lab exam; a link to sign up will be sent to your university email account at least one week prior to the exam. Arrive at least 10 minutes prior to your practical exam time. Students will not be allowed to enter the room once the practical exam has begun.

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. After you have been to each station, you will have 3 minutes to go back to 2 or 3 stations. Images of each station will be posted on Blackboard after the practical exams have been completed.

Quizzes (100 points)

There will be six unannounced quizzes in lecture and lab worth 10 points each. The lowest lecture and lab quiz score will be dropped. These quizzes may cover anything from previous lecture or lab material, respectively.

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 500 points are available. There will be no other points or assignments available beyond those listed here. The use of +/- grades is at the instructors' discretion. Letter grades will be assigned as follows:

A	≥ 425 points (85%)
B	≥ 375 points (75%)
C	≥ 300 points (60%)
D	≥ 250 points (50%)
F	< 250 points *or* lack of active participation in dissection
WU	< 200 points *and* the final exam not taken

This scale may be adjusted downward at the end of the term to reflect natural breaks between student total points, but will not be shifted upwards. Once assigned, grades will not be changed unless errors in grade calculations occurred.

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 an implied contract between you and the instructor. Your continued enrollment in this class indicates your understanding of, and agreement with, the material in the syllabus. You are expected to print this syllabus, read it carefully, and keep it in your notebook to refer to during the term.

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 in 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 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 increase your understanding, but 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.

Course Schedule

The lecture 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 regardless of the schedule. The lab schedule and exam/practical dates will not be altered.

Date	Topic	Text	Date	Topic	Manual
22 Aug	Introduction, Tissues	**1**: 1, 2, 6 **4**	22 Aug	No lab	Preface, 1
27 Aug			27/29 Aug	Tissues: Microscopy, Epithelial, Muscle, Nervous	2
29 Aug					
03 Sep	Skeleton	**6**: 1-5 **9**:1-5	03/05 Sep	Tissues: Connective, Integument	
05 Sep					
10 Sep			10/12 Sep	Skeletal: Microscopy, Axial Skeleton	3
12 Sep	Muscles	**10**: 1-6 **11**: 1			
17 Sep			17/19 Sep	Skeletal: Appendicular Skeleton, Articulations	
19 Sep					
24 Sep	**Exam 1**		24/26 Sep	Muscles: Hind limb, Shoulder	4
26 Sep	Circulatory	**19**: 1-3 **20**: 1-2			
01 Sep			01/03 Sep	Muscles: Arm, Trunk	
03 Sep					
08 Sep	No Classes		10 /11 Sep	**Practical 1**	
10 Sep	Circulatory	**21**: 1			
15 Sep	Respiratory	**22**: 1-3, 6	15/17 Sep	Circulatory: Heart	5
17 Sep					
22 Sep			22/24 Sep	Circulatory: Vasculature and Lymphatic	
24 Sep	Digestive	**23**: 1-7			
29 Sep			29/31 Sep	Respiratory	6
31 Sep					
05 Nov	**Exam 2**		05/07 Nov	Digestive	7
07 Nov	Urinary	**25**: 2-4, 9			
12 Nov			12/14 Nov	Urinary/Reproductive	8, 9
14 Nov	Reproductive	**27**: 1-3			
19 Nov					
21 Nov	Nervous	**12**:1-3, 5 **13** **14** **15**: 1-3	19/21 Nov	Nervous: CNS	10
26 Nov			26/28 Nov	No lab	
28 Nov	No Classes				
03 Dec	Integument	**5**: 1-3	03/05 Dec	Nervous: PNS, Special Senses	10
05 Dec					
10 Dec	Human Biology	Manual **10**	09/10 Dec	**Practical 2**	
12 Dec	**Final Exam** (8:30-10:30)				