Biology 151: Human Anatomy & Physiology I
Chaminade University
Summer Evening 2015
Section #BI-151-60-2
Section #BI-151L-60-2
07/07/15 – 09/12/15

INSTRUCTOR:	**Kyle J. Davis**
OFFICE HOURS:	**By appointment**
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INSTRUCTOR WEBPAGE:	**http://tinyurl.com/profdavisanatphys**
CLASS HOURS:	**Lecture – Tuesdays 17:30 – 21:40**
	Lab – Saturdays 12:30 – 16:40
PREREQUISITE(S)	**High school biology & chemistry**

A. COURSE DESCRIPTION

Human Anatomy and Physiology I is the first of a two-part course designed to provide the student with a sound foundation in the basic principles of the structure and function of the human body. Students who master the concepts and information presented in the course will be adequately prepared for the further in depth study in a variety of disciplines including Nursing, Athletic Training, Exercise Physiology, and pre-professional programs. Areas covered during this semester will include basic anatomical terminology, biological chemistry, histology, the integumentary system, the muscular system, the skeletal system, and the nervous system.

B. METHOD OF INSTRUCTION

This course will utilize primarily a basic lecture format with instructor-led class discussions. Students will be expected to take written notes as well as obtain course documents from the instructor's website. Students will be expected to engage in laboratory activities and practical exams, but this portion of the course will be graded separately from the lecture grade.

C. COURSE OBJECTIVES

In this course, students will:

1. Develop a vocabulary of appropriate terminology to effectively communicate information related to anatomy and physiology.
2. Recognize the anatomical structures and explain the physiological functions of body systems.
3. Recognize and explain the principle of homeostasis and the use of feedback loops to control physiological systems in the human body.
4. Use anatomical knowledge to predict physiological consequences, and use knowledge of function to predict the features of anatomical structures.
5. Recognize and explain the interrelationships within and between anatomical and physiological systems of the human body.
6. Synthesize ideas to make a connection between knowledge of anatomy and physiology and real-world situations, including healthy lifestyle decisions and homeostatic imbalances.
7. Demonstrate laboratory procedures used to examine anatomical structures and evaluate physiological functions of each organ system.
8. Interpret graphs of anatomical and physiological data

D. LECTURE COURSE TOPICS/UNITS AND DATES (subject to change)

Week	Dates	Lecture Topics	Text Reference
1	07/07/15	**An Introduction to the Human Body** **The Chemical Level of Organization**	Ch. 1 Ch. 2
2	07/14/15 **Quiz #1** **Ch.'s 1 & 2**	**The Cellular Level of Organization** **The Tissue Level of Organization – Histology**	Ch. 3 Ch. 4
3	07/21/15 **Quiz #2** **Ch.'s 3 & 4**	**The Integumentary System** **The Skeletal System: Bone Tissue** **CLINICAL CORRELATION TOPIC DUE**	Ch. 5 Ch. 6
4	07/28/15 **Quiz #3** **Ch.'s 5 & 6**	**The Skeletal System: Axial Skeleton** **The Skeletal System: Appendicular Skeleton** *Review for Midterm Exam*	Ch. 7 Ch. 8
5	08/04/15	**MIDTERM EXAM** **The Skeletal System: Joints (Articulations)**	**Ch.'s 1-8** Ch. 9
6	08/11/15 **Quiz #4** **Ch. 9**	**Muscle Tissue** **The Muscular System**	Ch. 10 Ch. 11
7	08/18/15 **Quiz #5** **Ch.'s 10 & 11**	**Neural Tissue** **The Spinal Cord, Spinal Nerves, & Spinal Reflexes** **CLINICAL CORRELATION PAPER DUE**	Ch. 12 Ch. 13
8	08/25/15 **Quiz #6** **Ch.'s 12 & 13**	**The Brain & Cranial Nerves** **Sensory Pathways & the Somatic Nervous System**	Ch. 14 Ch. 15
9	09/01/15 **Quiz #7** **Ch.'s 14 & 15**	**The Autonomic Nervous System** *Review for Final Exam*	Ch. 16
10	09/08/15	**FINAL EXAM**	**Ch.'s 1-16** **Emphasis on 9-16**

E. LABORATORY COURSE TOPICS/UNITS AND DATES (subject to change)

Week	Dates	Laboratory Topics	Assignments
1	07/11/15	**Lab & Safety Guidelines** **Body Landmarks, Quadrants, Regions, & Directional Terms**	Purchase lab coats Marieb Exercises 1 &2
2	07/18/15 **Quiz #1**	**Cell Models** **Mitosis Models & Slides** **Tissue Slides (Epithelial, Connective, Muscle, Neural)**	Marieb Exercises 3, 4 & 5 PhysioEx – Exercise 1
3	07/25/15 **Quiz #2**	**Skin Model** **Bone Tissue Slides & Drawings**	Maieb Exercises 6 & 7
4	08/01/15 **Quiz #3**	**The Skeletal System: Axial Skeleton** **The Skeletal System: Appendicular Skeleton** *Review for Midterm Exam*	Marieb Exercises 8 & 9
5	08/08/15	**MIDTERM EXAM & PRACTICAL** **The Skeletal System: Joints (Articulations)**	**Diagrams, Models, & Exercise Review Information (Wks 1-4)** Marieb Exercise 10
6	08/15/15 **Quiz #4**	**Muscle Tissue Slides, Muscle Locations (Names), & Actions**	Marieb Exercises 11 & 12 PhysioEx – Exercise 2
7	08/22/15 **Quiz #5**	**Neural Tissue Slides** **The Spinal Cord, Spinal Nerves, & Spinal Reflexes**	Marieb Exercises 13, 15, & 16 PhysioEx – Exercise 3
8	08/29/15 **Quiz #6**	**The Brain Models & Cranial Nerves**	Marieb Exercise 14
9	09/05/15 **Quiz #7**	*Review for Final Exam & Practical*	No assigned exercises: study and review skeletal, muscle, and brain models
10	09/12/15	**FINAL EXAM & PRACTICAL**	**Diagrams, Models, & Exercise Review Information (Wks 5-8)**

F. TEXTBOOK(S) AND REQUIRED TOOLS OR SUPPLIES

- **REQUIRED:**
  - Martini, F. H., Nath, J. L., & Bartholomew, E. F (2015). *Fundamentals of anatomy and physiology* (10th ed.). San Francisco, CA: Pearson Education, Inc.
- **RECOMMENDED:**
  - Marieb, E. (2012). Essentials of Anatomy and Physiology (5th ed.). San Fancisco, CA: Pearson Education, Inc.
  - www.masteringaandp.com
  - www.quizlet.com
  - 3-ring binder

G. GRADING PLAN

- Students grade will be determined by a weighted point system. There will be 2 major exams (midterm & final) and seven smaller quizzes, a writing assisgnment, and participation assignments that will be combined together to determine the possible point total
- Major Exams = 50% of total grade
- Quizzes = 30% of total grade
  - I will ***not*** drop the lowest grade, but completion of an assigned participation activity along with quiz corrections can be turned in to raise the quiz grade by ½ of the total points missed.
- Writing and participation assignments = 20% of total grade
  - Writing assignments will include clinical correlation papers and short reflections.
    - Please see attached rubric for clinical correlation writing assignments
    - Reflections will be used as weekly formative assessments to monitor your progress and check your understanding level of the content
  - Participation assignments will include:
    - Answers to textbook questions
    - Electronic submission of activities on Mastering A & P website
    - Class attendance
    - Use of Quizlet.com
    - **EXTRA CREDIT CAN BE EARNED BY COMPLETING THESE ACTIVITIES**
- Grading scale is as follows: A=90-100%, B=80-89.99%, C=70-79.99%, D=60-69.99%, F=<60%

Incompletes given at the semester end will only be given if previously agreed upon by the student and instructor with a specific time designated for the completion of the incomplete work. Please note the college's policy on incompletes as stated in the college catalog.

Academic Dishonesty: At all times the student must do his/her own work. Do not cheat in any form. Any student found cheating on any test would forfeit the total number of points possible on that assessment and will be reported to program and school officials for further disciplinary action, which may include removal form the program.

Exams/quizzes must be taken on the scheduled day. ONLY if arrangements are made with the instructor prior to the original test date will a student be allowed to take a test at a different time, and then it must be taken before the scheduled test.

H. CLASSROOM POLICIES

ATTENDANCE:

- Each student is expected to attend all classes. It is the responsibility of the student to make definite arrangements with the instructor for make-up work BEFORE going on a field trip or another college-sponsored event. Class periods, assignments, and tests that are missed without prior arrangements with the instructor may not be made-up unless unusual circumstances prevail and at the instructor's prerogative. If the student misses a quiz or exam, and the instructor is contacted by phone, email, or text in advance, the student *may* be permitted to make-up the assignment with a 10% deduction.
- I am required to report to the Office of the Associate Provost and the Registrar when a student is absent from two lecture or lab sessions. Absences are considered unexcused. Tardies may be considered unexcused absences, depending on how late the student reports to class. Excused absences will be considered after a discussion with

the instructor has taken place. It would be to your benefit to inform me before class that you will be absent. It is the sole discretion of the instructor whether or not to drop a student from the class after a combination of three (3) lecture or laboratory absences (excused or unexcused).

STUDY SKILLS:

- As a student, you must realize that you are responsible for your own education. All students do not learn the same way or at the same rate. A good starting point is to allot two hours of study time for every one hour of classroom lecture. This time could be spent reading, taking your own notes, or making modifications and additions to notes you took in class.
- I highly recommend using the materials found on www.masteringaandp.com since it follows your textbook directly. I also recommend answering the review questions in the textbook. Please reference my website for additional resources.

BEHAVIOR:

- Arrive to class on time. If you do arrive late, or need to exit early, please do so quietly as to not interrupt the rest of the class.
- Please refrain from talking while the instructor, a classmate, or guest lecturer is speaking.
- Laptops or other electronic tablet devices should be off and put away unless otherwise directed by the instructor
- Cell phones must be turned off or silenced during class. If you expect an urgent and important call set your phone on single beep mode or vibrating battery mode. Cell phone use to take pictures of diagrams, models, or specimens is permitted. Answering your phone in class is prohibited and is grounds for exclusion from that class session with an unexcused absence, except for previously discussed special circumstances.
- Academic dishonesty includes all forms of cheating and plagiarism. These issues will be dealt with in strict accordance of the student handbook
- **Close-toed shoes and lab coats are required in the laboratory**. Any student wearing slippers or flip-flops or who does not have their lab coat will be excluded from that laboratory session and counted as absent.

MISCELLANEOUS:

- Consult your *Student Handbook* for all other policies and student responsibilities. You are expected to have read your *Handbook*, so "I didn't know that" will not be a valid excuse.
- No pets are allowed in class. Exceptions will be made for seeing-eye dogs.
- Smoking is prohibited in either lecture or laboratory.
- You are not entitled to make up any work, but I will consider the possibility after discussion**.** If there are any discrepancies or disagreements with the instructor or other students, please see the instructor personally during scheduled office hours or make an appointment.
- Students with disabilities: Arrangements can be made for students with learning disabilities if they provide the instructor with documentation from an LD advisor and visit the instructor during office hours to discuss any special arrangements. Remember that you first need to contact the Office of Services to Students with Disabilities.

I. LABORATORY WARNING AND DISCLOSURE

- Dissection material used in this lab may have been fixed with an aqueous solution of formaldehyde, which is an irritant of the eyes, upper respiratory tract, and skin, is tumorogenic in rats, and is a Group B1 carcinogen. Formalin is toxic. Drinking formaldehyde is fatal. Therefore, during any dissection lab:
    - Gloves should be worn to protect the skin.
    - Glasses should be worn to protect the eyes.
    - Spills and splashes should be immediately and thoroughly wiped up and rinsed off with water.
    - The specimen should be frequently rinsed with water. Rinsing also reduces desiccation of the specimen.
    - Available fans should be set on "high" speed, and all windows and door kept open for ventilation.
    - Any student with chronic, defined respiratory problems should report to the instructor.

- **GENERIC LABORATORY RULES**
    - Generally, each student is expected to act in a mature and responsible manner in the laboratory.
    - Laboratory equipment is to be treated with care; please report any malfunction or breakage of the equipment or supplies.
    - Keep your work area clean. All spills and debris are to be removed before leaving the laboratory.

- Preservative fluids can stain and discolor your clothes. An old shirt or apron is recommended, even though you are required to wear a lab coat.

- **SAFETY RULES**
  - Know the location of the first aid kit and report any injury or chemical reaction IMMEDIATELY to the instructor.
  - Dissection instruments are to be used with care and control; do not endanger yourself or your lab partner with inattention or horseplay.
  - All incisions and cuts are to be made AWAY from you and your lab partner's body or appendages. Whenever possible, cut downward into the pad liner on the bottom of the dissecting tray or pan.
  - Do not eat or drink anything in the laboratory, and smoking is prohibited. If you go outside to eat/drink/smoke, be aware of contact contamination.
  - Wear gloves when handling any specimen. Wash immediately if preservatives come in contact with your skin.

****NOTE: the information contained in this syllabus is subject to change throughout the course. Please be attentive in class when changes are noted and check the course website regularly for any additional updates or changes. Students will be given ample notice of any major changes to due dates, deadlines, and changes to the exam schedule.**

LABORATORY
ASSUMPTION OF RISK AND RELEASE OF LIABILITY

I have read and completely understand the written safety and other general laboratory rules and precautions that are a part of the requirements for my participation in the laboratory, as well as those explained to me by the instructor, and I agree to strictly abide by them.

I, _____ do for myself, my heirs, executors
(Print your name)
and administrators, hereby accept full responsibility for and indemnify, release, and discharge Chaminade University of Honolulu, its officers, agents, and employees from any and all claims of actions for property damage, and/or personal injury which may result from my failure to abide by the Laboratory Safety Rules and Precautions, or from any inherent risks in said laboratory.

_____ _____
Signature of Student Date

Clinical Correlation Paper

- By the end of Week 3, the student must submit a topic clinically relevant to some aspect of the anatomy and physiology topics covered at any point in the course. The paper should explore a topic with attention to recent research and developments beyond the material presented in the required course textbook, laboratory manual, etc. The topic must be approved by the instructor, and should be submitted by the end of the Week 7. The paper should be 3-5 pages of content in APA format, plus a title page and reference page(s).

Clinical Correlation Paper	**Points**
Explores the topic with attention to recent research and developments beyond the material presented in the required course textbook and laboratory manual	20
Paper is properly formatted	
- Title page and reference page (works cited)	3
- New Times Roman font, 12 point, double-spaced, 1-inch margins	3
- 4-6 pages (not including title and reference pages or appendices)	3
Content is organized logically	3
Thoroughly and properly referenced	
- References show evidence of adequate research	2
- Primary, reliable sources cited	2
- Citations in APA format	2
Displays evidence of critical analysis	7
Overall Quality	5
Total points Late Submission penalty – 10% drop for each day late	**50**

- For many of you, this may be the first time you have written a paper in a few years. Recognizing this fact, below you will find some information including links to help you with your Clinical Correlation Paper (CCP).
    - Outline template for an "expository" (explanatory) paper: http://www.sbcc.edu/clrc/files/wl/downloads/StructureofaGeneralExpositoryEssay.pdf
    - Prewriting: http://owl.english.purdue.edu/owl/resource/673/1/
    - Thesis: http://owl.english.purdue.edu/owl/resource/545/1/
    - This Purdue Owl website has many other informative resources regarding mechanics, grammar, and punctuation as well. Please utilize as many of these as you fell necessary and ask other students you trust to peer review you paper.
    - APA format & citations: while not always 100% reliable, there are planty of websites that will make your citations for you (Bibme.org, Citation Machine, etc.).

General Scoring Rubric for Scientific Writing Assignments

Exemplary an A paper…..	• Clearly and overtly establishes the context and purpose for writing (helps the reader care); meets or exceeds the expectations of the assignment with respect to scope • Anticipates and responds to the needs of the audience (reader-friendly) • Persuasively develops the subject matter; supports conclusions with data and/or evidence from the literature • Is organized logically and clearly (structured to reflect scientific logic and/or reasoning) • Uses carefully focused, emphatic, and concise sentences • Chooses words for their precise meaning • Uses correct grammar, spelling, and punctuation • Follows the conventions of scientific presentation (format, terminology, documentation, referencing, graphics, and so forth)
Quality a B paper…	• Has a specific context and purpose (related to the assignment), but these may be less clearly defined or cover less scope than in an A paper • Responds appropriately to the audience, but may not anticipate their needs • Thoughtfully develops the subject matter, but the evidence may be less persuasive (fewer supporting details) • Is generally organized logically, but the organization may lapse • Uses generally clear sentences, but they may be wordy or lack focus • Uses words accurately, but may have unnecessary jargon or a few overly general or vague words • Has very few problems with grammar, spelling, or punctuation • Generally follows the conventions of scientific presentation
Adequate a C paper…	• Often does not have a clear context for writing; it will generally have a purpose, but the purpose may not be readily apparent or it may be tangential to the assignment; the scope may fall short of the assignment • May have only a vague sense of audience or respond inappropriately for the audience • Is likely to treat the subject matter superficially or contain inaccuracies • Will have some sense of organization, but the organization may be illogical or artificial; transitions are likely to be choppy or weak • Will have generally understandable sentences, but they may be awkward, wordy, or rambling • Tends to contain vague, inappropriate, or overly general words • May have several problems with grammar, spelling, and punctuation, but these generally do not prevent understanding • Often does not follow the conventions of scientific presentation
Needs Improvement a D paper…	• Does not address the question; lacks a sense of context or purpose • May show little understanding of the needs of the audience • May show little understanding of the subject matter or may be incomplete • Is likely to be organized illogically or randomly • Is likely to have many problems with sentence structure and coherence that impede understanding • Is likely to use many vague and imprecise words or much inappropriate jargon • May have many problems with grammar, spelling, and punctuation or may have a few problems of such severity that the paper is difficult to understand • May show little awareness of the conventions of scientific presentation
Inadequate An F paper…	• May respond inappropriately to the assignment • May be very brief and underdeveloped or include much irrelevant information • May show little understanding of sentence structure • May use words inappropriately • May have many severe problems with grammar, spelling, and punctuation