BIOL 2457 –Anatomy & Physiology I **Fall Lecture: TTH 9:30-10:50am, Location SEIR 198**

INSTRUCTOR

Dr. Nicholas Pollock (nicholas.pollock@uta.edu)
Phone: 817-272-5732, Life Sciences Building Room 466
Office Hours: M 12-1pm, T 11-12pm, W 1-2pm, TH 2-3pm, F 11-12pm, or by appointment

COURSE MATERIALS

Modified Mastering A&P code with eText (includes Interactive Physio, PAL, and PhysioX lab access).
Pearson. ISBN: 9780134763415

COURSE DESCRIPTION

Anatomy is defined as the study of structure of body parts and their relationships to each other. Physiology is the study of how an organism functions. When all is said and done, physiology can only be explained in terms of the underlying anatomy. In this course, the general principles of physiological mechanisms on the cellular, tissue, organ, and organismal levels will be discussed with a focus on the human species. However, comparisons may be made to other vertebrate species to emphasize similarities and differences across vertebrate taxa. Topics will include the organization of the human body and anatomy and basic physiology of the integumentary, musculoskeletal, nervous, and sensory systems. Laboratory activities will complement lecture material and will explore both anatomical and physiological aspects of principles introduced in the lecture.

COURSE OBJECTIVES

• Describe the levels of organization that comprise the human body.
• Understand and explain the functional morphologies of the integumentary, musculoskeletal, nervous, and sensory systems.
• Understand and appreciate the importance and relevance of physiology to everyday life.

TENTATIVE SCHEDULE

	WEEK 1: LECTURES	**NO LABS**
Aug 23	Intro & Overview	
	WEEK 2: LECTURES	**LAB WEEK 1 (Aug 26 - Sept 1)**
Aug 28	Biochemistry I (Chap 2)	Introduction to Mastering AP,
Aug 30	Biochemistry II (Chap 2)	Anatomical Language, Organ Systems, Cells
	WEEK 3: LECTURES	**NO LABS**
Sept 4	Cells: The Basic Living Unit I (Chap 3)	Work on your Group Presentations!
Sept 6	Cells: The Basic Living Unit II (Chap 3)	
	WEEK 4: LECTURES	**LAB WEEK 2 (Sept 9 - Sept 15)**
Sept 11	Tissue: The Living Fabric I (Chap 4)	Tissues,
Sept 16	Tissue: The Living Fabric II (Chap 4)	Integumentary System
	WEEK 5: LECTURES	**NO LABS**
Sept 18	The Integumentary System (Chap 5)	Work on your Group Presentations!
Sept 20	Review	
	WEEK 6: LECTURES	**LAB WEEK 3 (Sept 23 - Sept 29)**
Sept 25	**Exam 1**	Bone Tissue,
Sept 27	The Skeletal System & Joints (Chap 7 & 8)	Axial Skeleton

	WEEK 7: LECTURES	**LAB WEEK 4 (Sept 30 - Oct 6)**
Oct 2	Bone Tissue & Bone Physiology I (Chap 6)	Appendicular Skeleton
Oct 4	Bone Tissue & Bone Physiology II (Chap 6)	
	WEEK 8: LECTURES	**LAB WEEK 5 (Oct 7 - Oct 13)**
Oct 9	The Muscular System (Chap 10)	Skeletal Muscles
Oct 11	Muscle Tissue & Muscle Physiology I (Chap 9)	**Presentation Abstracts Due Oct 8 @ 1am**
	WEEK 9: LECTURES	**LAB WEEK 6 (Oct 15 - Oct 19)**
Oct 16	Muscle Tissue & Muscle Physiology II (Chap 9)	**Practical I**
Oct 18	Review	
	WEEK 10: LECTURES	**LAB WEEK 7 (Oct 21 - Oct 27)**
Oct 23	**Exam 2**	Nervous Tissue,
Oct 25	The Nervous System I (Chap 11)	Central Nervous System
	WEEK 11: LECTURES	**LAB WEEK 8 (Oct 28 - Nov 3)**
Oct 30	The Nervous System II (Chap 11)	Cranial Nerves,
Nov 1	The Central Nervous System I (Chap 12)	Autonomic Nervous System, Reflexes
	WEEK 12: LECTURES	**LAB WEEK 9 (Nov 4 - Nov 10)**
Nov 6	The Central Nervous System II (Chap 12)	Sensory System
Nov 8	The Peripheral Nervous System (Chap 13)	
	WEEK 13: LECTURES	**LAB WEEK 10 (Nov 12 - Nov 16)**
Nov 13	The Autonomic Nervous System (Chap 14)	**Group Presentations Due Nov 12 @ 1am**
Nov 15	Review	
	WEEK 14: LECTURES	**NO LABS**
Nov 20	**Exam 3**	
Nov 22	NO CLASS.... HAPPY THANKSGIVING!	
	WEEK 15: LECTURES	**LAB WEEK 12 (Nov 26 - Nov 30)**
Nov 27	The Sensory System I (Chap 15)	**Practical II**
Nov 29	The Sensory System II (Chap 15)	
	WEEK 16: LECTURES	
Dec 4	The Sensory System III (Chap 15)	

Final Exam Period (Tuesday, December 11th, 8-10:30 am): **Final Exam (Cumulative)**

GRADES

9 Quizzes (@ 10 pts each)	90	Quizzes (8 @ 10 pts each)	80
3 Lecture Exams (@ 100 pts each)	300	Lab Practicals (2@ 100 pts each)	200
Final Exam	100	Group Presentation	20
Lecture Total (65%):	490 points	Group Presentation Abstract	10
		Lab Exercises	169
		Laboratory Total (35%):	479 points

I do not curve grades, but I do round grades up from the 0.5% level (for example, if your final grade is 86.5%, you will be rounded up to 87%). Also, if you have regularly attended class, participated, and are within 1-2 points of the next letter grade, I am willing to bump you up. Grade cut-offs are as follows:

A 90 to 100%; **B** 80 to 89; **C** 70 TO 79; **D** 60 to 69; **F** Below 60

ASSIGNMENTS & QUIZZES

Reading: Always read the flow chart (beginning of each chapter) and Chapter Summary (end of each chapter) for each assigned chapter BEFORE coming to class. The rest, you can either read before or after class, depending on your personal preference.

Quizzes: Quizzes will be all weeks except weeks 1, 5, 6, 9, 10, 13, and 14. Quizzes will be administered in class, through Top Hat (see below). Quizzes will cover any material from the previous weeks. Each quiz will consist of 10 multiple choice/identification questions and you will have approximately 45-60 seconds per question. You are NOT permitted to use your notes or other sources to answer the questions. The time limit will prevent this.

EXAMS

All exams are multiple choice and require a Scantron form 882-ES, a #2 pencil, and an ID (yes, you can use your license). If you know you have a schedule conflict with an exam date, you must notify me at least 2 weeks in advance. There are 3 lecture exams, each with 50 multiple choice questions. The final exam is cumulative, and will consist of 100 multiple questions. However, if you receive A's on all lecture exams, then your final exam will only include questions dealing with the sensory system. Therefore, it is worth giving it everything you have to get those A's early on.

TOP HAT

We will be using the Top Hat (www.tophat.com) classroom response system in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or via text message (SMS).

You can visit https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide for the Student Quick Start Guide, which outlines how you to register for a Top Hat account, as well as providing a brief overview to get you up and running on the system. Technical support can be reached by using the contact information at https://success.tophat.com/s/contact-main. An email invitation will be sent to your email account (if you don't receive this email, you can register by visiting our direct Top Hat course URL: app.tophat.com/e/036810)

Top Hat will require a subscription. There are three options to choose from:

- $26 per semester
- $38 per calendar year
- $75 lifetime

BLACKBOARD

All class notes, grades, and information, including this syllabus can be found on Blackboard. If you have any questions, please check this syllabus and Blackboard first, if you still cannot find the information you are looking for, then you may email me.

INSTRUCTOR ACCESSIBILITY

I will be available for walk-in meetings or instant e-mail replies during the hours listed at the top of this document. For students who are unavailable during the hours listed, please email me for an appointment. If you come by my office and my door is open, please knock and I am likely to meet with you if I am not currently busy. In addition, I will respond to e-mails outside of those hours within reason. You can expect a response within 24 hours, usually less, for emails received during the week.

COURSE EXPECTATIONS AND POLICIES

Lectures: I expect you to attend lecture. Students who regularly attend lecture score significantly higher on tests than students who do not (e.g., C vs. B+), plus I am more likely to bump up your final grade. Regardless of whether you are in class or not, however, you are responsible for everything which is discussed in lecture, everything which is assigned, and any handouts which are given in class. You are expected to make your own arrangements for access to class notes or handouts that you missed. If you choose to use a laptop for taking notes during class, please refrain from checking email or browsing the internet – if you are caught doing so, I will ask you to put your computer away immediately.

Also:

- If you must miss an exam, you must clear it in advance directly with me. In many cases, I will require official documentation of your excuse (e.g., doctor's or dean's note).
- Missed exams and quizzes without my permission will result in a grade of 0.
- **I expect you to check your email for class announcements.**
- **Academic dishonesty of any kind will not be tolerated (see below)!**

HOW TO STUDY FOR MY CLASS

I use my own Powerpoints that I have made using the textbook and other sources. The best way to study is to read the chapters before class, and attend lecture to gain a greater understanding of the material and to determine which information I deem most important (I tell you this in class). Outside of class, review your notes, mark any information you still don't understand, and get that taken care of first. Read that section of the book again, find and watch tutorial videos, and/or come to my office hours for help. Make outlines, tables, and drawings using the Powerpoints to organize the information. This will help you make connections among the various topics, retain the information more efficiently, and gain a greater understanding of anatomy and physiology. Start with learning all definitions and anatomical structures, then focus on and learn the physiological concepts and processes. Practice and review by using any practice questions I post for you on Blackboard, those in the textbook, and those from other reputable sources. It is also very beneficial for you to make your own practice questions so that you can understand why some answers are correct and others are not. Overall, it is very important that you are able to recall the information from your brain and make sense out of the larger concepts by explaining them in your own words. Do not just read your notes or the textbook! Reading is passive learning, and does not work for 97% of people! Find active ways to study: recall, writing, drawing, speaking, teaching others, etc..

CONFLICT RESOLUTION

If you are experiencing an issue in lecture, you must first arrange a meeting with me. If the issue remains unresolved after you have met with me, you may then consult the Associate Chair of Biology, Dr. Laura Mydlarz. To do this you need to file a grievance at https://www.uta.edu/php-lib/machform/view.php?id=3403. You must file the form in order to have your issue heard. None of the listed personnel will discuss the issue with you until you have first consulted all of those preceding him/her.

ACADEMIC HONOR CODE

Each student has the responsibility to uphold the highest standards of academic integrity in their own work, to refuse to tolerate violations of academic integrity in the university community, and to foster a high sense of integrity and social responsibility on the part of the university community. Cheating and Plagiarism: Plagiarism is defined as the use of any information, published, or unpublished without acknowledgement. Cheating occurs when you use the work of another student in place of your own.

Neither will be tolerated. It is extremely important that you distinguish your own ideas from those of others. You must always acknowledge sources. If you have any questions, see me.

AMERICANS WITH DISABILITIES ACT

Lecture instructors are required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of disability. It is the student's responsibility to inform me that they require accommodation by the end of the second week and prior to any assignments, quizzes, activities, or exams that require accommodation. It is also the student's responsibility to schedule exams in the ARC and to notify me of the exam scheduling. Only students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at http://www.uta.edu/disability or by calling the Office for Students with Disabilities (University Hall, Room 102, 817-272-3364).

TITLE IX

The University of Texas at Arlington is committed to upholding U.S. Federal Law "Title IX" such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

SYLLABUS CHANGE POLICY

This syllabus is a guide for the course and is subject to change. Notice will be given. If you find an error, please contact me.