

**"Learn from yesterday, live for today, hope for tomorrow.
The important thing is to not stop questioning."
— Albert Einstein**



Syllabus for Biology 2301 – Human Anatomy and Physiology I



Instructor: Kerry Walling **Office:** HS 225J

Office hours Monday and Wednesday 4-5PM
Tuesday and Thursday 10-11AM

Office phone: 230-3342

Email: kerry.walling@brazosport.edu

Alt. Phone: Office Professional - 230-3225

1. Course Description

Human Anatomy and Physiology I is a study of the cells, tissues, and organ systems of the human body. Emphasis is on understanding the physiologic mechanisms maintaining homeostasis. The dynamics of cell membranes as well as the components and functions of the integumentary, skeletal, muscular, nervous, and endocrine systems will be studied. Laboratory activities are designed to complement lecture topics.

2. Prerequisites

None Biology 1306 HIGHLY Recommended

3. Course Goals

The following are the student learning outcomes:

- Name the 6 different levels of structural organization that make up the human body (from smallest to largest).
- List the 11 organ systems. Identify components of each, as well as the major function.
- List the 4 different tissue types and be able to describe and differentiate between them.
- Explain how negative feedback mechanisms are involved in maintaining homeostasis.
- Identify and describe cellular organelles and the composition of the plasma membrane.
- Define and give examples of membrane transport processes.
- Define and describe the acute inflammatory response.
- Describe the structure and function of the skin.
- Describe the structure and function of bone.
- Identify the bones in the appendicular and axial skeletons.
- Describe and explain the physiology and differences between resting membrane potential, action potential, and local potential in reference to neurons.
- Describe the events that occur at the neuromuscular junction and how these events contribute to skeletal muscle contraction.
- Identify select muscles of the arm, leg, face and torso. Describe the actions these muscles produce.
- Describe and explain the autonomic nervous system in terms of its anatomy, physiology, and neurotransmitters.
- Describe the location and function of the various endocrine glands found in the body. List the major hormones that each gland produces and the effects of the hormone on the target tissues.

4. **Textbook:** Required: Human Anatomy & Physiology, Marieb & Hoehn, Pearson Publisher, 10th Ed., ISBN: 978-0-321-92704-0. You will need text for lecture and lab
 - a. Required course materials are available at the Brazosport College bookstore, on campus or online at <http://www.brazosport.edu/bookstore>. A student of this institution is not under any obligation to purchase a textbook from the college bookstore.
 - b. Optional & Recommended: Encyclopedia & Dictionary of Medicine, Nursing, and Allied Health, 7th Ed., by Miller-Keane. This is a useful source for terminology definitions as well as for the causes, signs & symptoms, and treatments of many diseases and disorders.
5. **Online resource:** <https://online.brazosport.edu> use your campus user name and password.
6. **Students with Disabilities:** Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Special Populations Counselor, 979-230-3236 for further information.
7. **Contacting Instructor:** Instructor will do her best to respond to students in a timely manner, when calling (230-3342) please state your name, phone number, class you are in before your message, my phone does not show caller ID on most calls. If you are emailing kerry.walling@brazosport.edu please put your name and class. Only emails from a BC email address will be responded to, so please make sure that you have an active BC email.

****Emails and phone calls after 3 on Thursdays will be returned on the following Monday.****

8. **Academic Honesty:** Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, **cheating, plagiarism, and collusion** shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information. This is available online at <http://www.brazosport.edu>. Click on the CATALOGS AND SCHEDULES link under STUDENTS. Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and will, at a minimum, result in 0 for the assignment or exam. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.
9. **Attendance and Withdrawal Policies:** The Brazosport College Life Sciences Department believes attendance in both lecture and lab is critical for the comprehension of material. . **The student is responsible for officially withdrawing from the course.** To officially withdraw from the course, students must complete and sign a withdrawal form, available in the Registrar's Office.
10. **Exams** - You will be given 5 exams in this class. Each exam will be comprehensive ~ each exam will contain material from the previous exam. Exams are a mixture of multiple choice, matching, true/false. Each exam will have 1 or more essay question over each major topic/chapter covered.
11. **The final exam is required.**
12. **Additional assignments:**
 - a. **Two In class group case studies. (50 points each)**
 - i. You will be assigned a group and given a case study to read and discuss, and answer questions as a group about said case study. These case studies will be spaced out in the semester. If you are absent from class on the day of the case study you will have to do a 2 page make up paper on a topic of your instructors choosing. It will be due 3 weekdays after assigned (see late work).

- b. GATOR reading attendance. See the handout. All you have to do is attend all three scheduled times, check my name for credit or write it in, and you will get your 50 points. If you miss a time you will have to write a 2 page make up paper on a topic of your instructors choosing. It will be due 3 weekdays after missed GATOR secession.
- c. **In class presentation (50 points)**
 - i. You will be assigned a topic and will give a short 5-8 minute **power point** presentation over said topic in class. These will be scattered throughout the semester and will cover material being covered that day in class. You have to be present in class to make presentation. Avoiding class as to not have to do presentations will result in a 0 on the presentation grade. Presentation material will be published on D2L for fellow students' to review.
- d. **Notebook. (100 points)**
 - i. A completed notebook can also replace lowest test grade. To be turned in before the final exam. An appointment must be made with the instructor to grade your notebook the week prior to the final exam. Any missing sheet from any chapter is -2 points.
Notebook requirements
 1. Syllabus
 2. Schedule
 3. Power Points with notes for each chapter.
 4. Questions completed for each chapter.
 5. Chapter fill-in completed for each chapter.
 6. Worksheets for each chapter
 7. Figures for each chapter
 8. Any additional handouts from instructor from each chapter

13. Make-up policy

- a. **There are no make-up exams** The completed notebook grade can replace a class exam. Do not ask for a change in this policy it will apply to everyone. *If you know you will miss an exam in advance you can take it before the exam is given not after or you can come to another class period. You must contact me before coming to another class.*
 - a. **Monday/Wednesday 9:30-11 HS 217**
 - b. **Monday/Wednesday 5:15-6:30 HS 217**
 - c. **Tuesday/Thursday 11-12:15 HS 217**
- b. **Late work:** late work will be penalized 5% each week day it is late. Friday, Saturday, and Sunday will not count against late work.

11. Grading

5 Exams worth 100 points
 5 x 100 = **500 points**
 2 Case studies worth 50 points
 2 x 50 = **100 points**
 1 Gator Participation(all three are required) worth 50 points
 1 in class presentation.
 1 x 50 = **50 points**
 1 Notebook worth 100 points
 1 x 100 = **100 points**
 Comprehensive final Required 1 x **200 points**
 Total 1000

A= 895-1000 points
 B=795-894 points
 C=695-794 points
 D=595-694 points
 F=594 and below

12. Student Responsibilities: Students are expected to fully participate in the course. The following criteria are intended to assist you in being successful in this course.

- A. Communicate with your instructor*above all else When leaving a message please state your name and what class you are in. This instructor will only communicate with students emailing from their assigned BC email address. Please do not try to email out of D2L to BC email address as this does not work. D2L to D2L works but email cannot leave the D2L world. So please use your BC email address, no gmail or yahoo accounts as FERPA laws prohibit student information sent to these outside accounts.
- B. Complete course work on time *no late assignments accepted, this is a shorten class schedule but the work you are required to do is the same as a complete semester. The knowledge gained in this class is just too important to skip on.
- C. Come to class on time *its rude and disrupts the flow of class. Plan for the train. ***
- D. **NO CELL PHONES IN CLASS**-use only when instructor gives a class break.
- E. Computers and tablets are acceptable until one person abuses the privilege, if caught doing anything other than taking notes the privilege is revoked for the whole class.
- F. **There is no videotaping of the lectures, you may record audio only.**
- G. Understand the Syllabus Requirements

13. Other Student Services Information

- Information about the Library is available at <http://www.brazosport.edu/~lib/Information.htm>.or by calling 979-230-3310.
- To contact the Life Sciences Department call 979-230-3225.
- The Student Services provides assistance in the following:
 - Counseling and Advising 979-230-3040
 - Financial Aid 979-230-3294
 - Student Activities 979-230-3355.
- To reach the Information Technology Department for computer, email, or other technical assistance call the helpdesk at 979-230-3266.

14. Participation policy

This is College. You, your family member, or the government are paying \$\$\$ to learn this material. Thus, all students are expected to **fully participate** in this course every day we have lecture. If you have an immediate family or personal emergency which may result in missing a lecture or an exam, **contact me in advance or as soon as possible** so that options may be discussed. Those who have **85%+ attendance in lecture** will receive **participation points** added to their final point total for the course that may result in an improved final grade (Ex: *you've been to class nearly every day*, I calculate your final grade after the class is done, you end at an 89.2, *I'll give you the points to make your 90*). **Plan to be in your seat five (5) minutes prior to class.** Depending on **class dynamics**, I reserve judgment on deciding the seating arrangement in lecture or lab.

15. **Authority clause and Behavior policy:** You are all now considered **adults**, with all the rights, privileges, and responsibilities therein. The College and your instructor will assume that all of you know how to conduct yourself in a respectful, polite, and college-level appropriate behavioral manner. However, **the lecture classroom is not a democracy - - it is instead an autocracy.** By rank and position, your instructor **retains all control** over maintaining the classroom learning environment. Thus, **disruptive behavior *won't* be** tolerated in the slightest during lecture. This includes, but is not limited to: excessive or loud conversations, inappropriate gestures, inappropriate or insulting conversational topics, bullying or demeaning other students or your instructor, challenging the authority of your instructor on grades, behavior, decisions, classroom and lab activities, or anything else that your instructor deems disruptive and distracting to the learning environment. Habitual or repeated disruptive behavior of any type **WILL** result in the **loss of Course points** at my discretion and **may lead to withdrawal** from the course at my discretion. In addition, habitual or repeated **tardiness** to class or lab will result in the **loss of Course points** at my discretion, and **may lead to withdrawal** from the course at my discretion.

Tentative class schedule

Chapters 1-3	Exam 1	February 3/4
Chapters 4&5 with tissue repair	Exam 2	February 17/18
Chapters 6&9	Exam 3	March 16/17
Chapters 11&12/reflexes 13	Exam 4	April 6/7
Chapters 14&16	Exam 5	April 25/26

Tentative Case study schedule

Case study 1	Chapter 6	March 14/15
Case study 2	Chapter 11	April 4/5

Tentative Presentation schedule

Topic	Date	Student
Medical imaging pages 14-15	January 13/14	1.
Protein structure 47-50	January 20/21	2.
Enzyme and enzyme action 51-52	January 20/21	3.
Primary and secondary active transport 73-76	January 25/26	4.
Vesicular transport 76-78	January 25/26	5.
Mitosis 98-101	January 27/28	6.
DNA transcription/translation 102-107	January 27/28	7.
Tissue repair 143-145	February 8/9	8.
Inflammatory response 775-777	February 8/9	9.
Structure of hair 157-159	February 10/11	10.
Structure of nails	February 10/11	11.
Skin cancer 164-165	February 15/16	12.
Burns 165-167	February 15/16	13.
Microscopic anatomy of bone 179-183	February 22/23	14.
	February 22/23	15.
Bone fractures (types)	February 24/25	16.
Bone disorders 192-193	February 24/25	17.
Muscle tone	March 2/3	18.
Isotonic and Isometric contractions 300-301	March 2/3	19.
Energy for muscle contraction 301-304	March 14/15	20.
Classification of neurons-structural 395-396	March 21/22	21.
Classification of neurons-functional 396-398	March 21/22	22.
Organization of Neurons 423-424	March 21/22	23.
Memory 456-457	March 23/24	24.

Brain wave patterns 457-458	March 23/24	25.
CVA's 464	March 28/29	26.
Alzheimer's 464-456	March 28/29	27.
Parkinson's 465	March 30/31	28.
Spinal cord trauma 470-471	March 30/31	29.
Reflex arc 515 (13)	April 4/5	30.
Stretch reflex 518-519 (13)	April 4/5	31.
Visceral Reflexes 537 (14)	April 11/12	32.
Unique rolls of the sympathetic division. 541-542	April 18/19	33.
Drug mimicking hormones	April 20/21	34.
Hormonal imbalances	April 20/21	35.

GATOR SCHEDULE

Documentary & discussion:	February 23 or 24	GATOR Hall H-100
Book discussion #1 (to Chap 19):	March 22 or 23	GATOR Hall H-100
Book discussion #2 (Chap 20 to end):	April 19 or 20	GATOR Hall H-100

TIMES: 9:30am, 11:00am, 12:30, 4:00 or 7:00 each day

Need to sign in at each session you attend to get the credit

Students required to purchase and read the following book:

The Immortal Life of Henrietta Lacks (2010) By Rebecca Skloot

\$3-16 on Amazon (Kindle \$9.99)

Copies available to check out from the Library

2 copies given away to students at each of the documentary viewings