

Biology 2101

Anatomy and Physiology Lab

Syllabus – Spring 2016

**The average human body
contains enough bones**



to make an entire human skeleton.

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1. Course Description

Human Anatomy and Physiology I Lab is a study of the cells, tissues, and organ systems of the human body. A variety of activities each week will provide you the opportunity to learn the anatomy and basic functions related to various organ systems. This is to be as much “hands on” as possible... say it, write it, ask it, see it, do it, etc. The dynamics of cell membranes as well as the components and functions of the integumentary, skeletal, muscular, nervous, and endocrine systems will be studied.

2. Prerequisites

None

3. Course Goals

The following are the student learning outcomes: Students will demonstrate:

- Anatomical terminology, body cavities, body quadrants and regions, and cellular organelles
- Cell membrane structure, skin anatomy and functions, synovial joint anatomy and movement, and diseases of joints
- Knowledge of axial and appendicular skeleton by learning the bones and the names of features, as well as microscopic anatomy of bone tissue.
- Understanding of anatomy and functions of the neuron, brain, rami, nerve plexus, dermatomes, cranial nerves, meninges and CSF circulation.
- Understanding of muscle anatomy and the names and function of select muscles.
- Endocrine system glands and the names, target tissue and primary function of each of hormone from each gland

4. Textbook and other materials for course

Required: Human Anatomy & Physiology, Marieb & Hoehn, Pearson Publisher, 10th Ed., ISBN: 978-0-321-92704-0. You will need text for lecture and lab

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. The same textbook is/may also be available from an independent retailer, including an online retailer

5. 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.

6. 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>.

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 may, at a minimum, result in **F** in this course. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

7. Attendance and Withdrawal Policies

The Brazosport College Life Sciences Department believes attendance in both lecture and lab is critical for the comprehension of material. I will take attendance in Lab. **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.

8. Course Requirements and Grading Policy

Some topics are best addressed in a lecture setting while others are more suited for lab. In general, the emphasis in lab is on anatomy. They are not all inclusive and I will not cover all of the material in lab. You are strongly encouraged to take notes. **You must read and study the textbook.**

9. Testing

Lab quizzes:

- Are based on the topics covered the previous week
- Are usually 25 questions, *written or oral* format, spelling counts
- Are given at the beginning of lab. Come early. Questions are not repeated for late arrivals.
- Normally, 9 quizzes given, 100 points each = 900 points
- Mid-term and Final count 150 points each = 300 points
- Grading = total of the best 10 grades will be divided by 1100 points

10. Make-up policy

There are no makeup lab quizzes. You must come at one of these times.

Monday, Tuesday, Wednesday at 1:00-4:00PM

Monday at 7-10 PM

11. 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. Understand the Syllabus Requirements
- b. Use appropriate time management skills
- c. Communicate with your instructor
- d. Complete course work on time
- e. Utilize online components as required

12. Projects, Assignments, Portfolios, Service Learning, Internships, etc.

You can earn 20 bonus points if you attend at least 15 LAB SI sessions, not only will you get the wonderful benefit of attending SI you will also get some bonus point help.

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.
- Information about study skills and tutoring for math, reading, writing, biology, chemistry, and other subjects is available in the Learning Assistance Center (LAC); see www.brazosport.edu/~lac or call 979-230-3253.
- 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.

Week starting	LAB TOPICS TO BE COVERED
Lab 1 1/10	Intro. to A&P Lab Closed Body Cavities and Major Organs 4 Abdominopelvic quadrants and 9 Abdominopelvic Regions Body Planes Directional terminology Serous Membranes, mesenteries and retroperitoneal organs
Lab 2 1/24	Quiz #1 ____ (record you quiz grade here) Build Your Own Membrane The Skin. Use text, models, posters, etc. to learn anatomy and functions. Synovial Joints anatomy. The knee joint. Use models. OYO from handout: Rheumatoid arthritis, Osteoarthritis, Gouty Arthritis
Lab 3 2/1	Quiz #2 ____ Human Axial Skeleton anatomy. Learn the bones (and their features) of the axial skeleton. Microscopic Anatomy of bone
Lab 4 2/8	Quiz #3 ____ Generic bone anatomy. Human Appendicular Skeleton anatomy
Lab 5 2/15	Quiz #4 ____ Neuron anatomy. Use models Spinal Cord anatomy. Use models Rami, nerve plexus and dermatomes Meninges
Lab 6 2/22	Quiz #5 ____ The Brain. Anatomy and regional functions. Use models Major blood vessels supplying the brain CSF and circulation
Midterm 2/29	Comprehensive Lab Mid-Term over labs 1 – 6 (150 points) No access to lab this week for study groups.

Lab 7 3/14	Learn cranial nerves I-XII Pain and pain blockage T.E.N.S. Unit demo Dissection of the cow brain
Lab 8 3/21	Quiz #6____ Movements seen at synovial joints Muscles of the Torso, Neck, & Face and the movements they produce.
Lab 9 3/28	Quiz #7 _____ Muscles of the Arms and Legs and the movements they produce.
Lab 10 4/4	Quiz #8 _____ Endocrine System. Identify gland locations on torso manikins. Hormones: Learn source, target tissue, and primary function of each hormone from "Hormone Hall of Fame" handout.
Lab 11 4/11	Quiz #9 _____ Special Senses Human Ear Anatomy and functions. Use models. Human Eye Anatomy and functions. Use models Dissection of the sheep eyeball. Eye Surgery Video
Final 4/18	Comprehensive Lab Final over labs 7 – 11 (150 points)