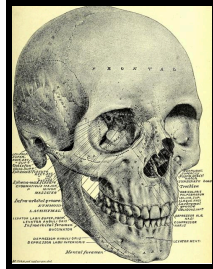


Welcome to Mrs. Biery's Honors Anatomy & Physiology Class

I hope you are excited to jumpstart our fascinating study of the Human Body!!!



PLEASE JOIN OUR GOOGLE CLASSROOM before the start of the school year.
Go to Google Classroom, hit the plus button in the upper right corner, then hit join class & enter the below class code.

Class code dgqmq6m5

HERE YOU WILL FIND OUR SYLLABUS & WEBSITE IF YOU WANT TO TAKE A PEAK
BEFORE THE SCHOOL YEAR.

Required Materials

★ Please purchase within the first week of school, reachout to me if needed. ★

- ✓ 3 - ring plastic binder (2 inch minimum) with a plastic cover
- ✓ Packages of dividers (need 10 tabs)
- ✓ Favorite pens & pencils with a good eraser
- ✓ White lined hole punched paper
- ✓ BOX of LATEX FREE GLOVES for dissection (pay attention to size)

Following are **OPTIONAL** if you would like your own (can always use classroom supply)

- ✓ Package of Markers, Crayons OR Colored Pencils (pick favorite)
- ✓ Highlighters (a few colors)
- ✓ A pair of scissors

 **Technology needed ~**

- ✓ **Charged chromebook everyday with earbuds or headphones**

- I prefer the school chromebook (please email me if you plan on using your own personal computer)

HONORS ANATOMY & PHYSIOLOGY SUMMER WORK

The purpose of summer work is to keep you engaged over the long break allowing you to keep your skills sharp and to prepare for topics covered during the year. We will hit the year running having an assessment on Unit 1 early in the school year. I am looking for you to follow instructions.

1. Pick up your textbook from me in room A140 before the end of the school year (Extra books will be left in the office over the summer)
2. Cover textbook - keep at home
3. Your assignment is to complete our Chapter 1 Outline (Sections 1-5), The Human Body: An Orientation
4. Bring completed summer work for the 1st day of class along with a picture of your covered book on your phone. If you do not have a phone please email me a picture of your covered book before our first class.
5. Be prepared to take an assessment on UNIT 1

Outline Guidelines for the Entire Year:

- needs to be handwritten & on white lined paper
- give a heading with outline title, your name & block
- in the margin, DATE as you work along for every new day
- follow order given vocabulary first then questions for each section
- HIGHLIGHT your vocabulary words
- write out questions fully & answer completely all parts
- ★ do your own work and do not share with others

I know a lot of you have numerous summer work assignments and vacation plans so plan your time wisely! If you complete this assignment early in the summer please make sure you review material before entering the classroom.

Please email me with any concerns. jbiery@lunenburgschools.net

HAVE A SAFE AND FUN SUMMER!! ~ Mrs. Biery

Anatomy & Physiology
UNIT ONE
ORGANIZATION OF THE BODY
Chapter 1 Outline
The Human Body: An Orientation

I. An Overview of Anatomy and Physiology, pages 2-3

Define these terms: anatomy, physiology, developmental anatomy, embryology, pathological anatomy, radiographic anatomy, molecular anatomy, renal physiology, neurophysiology, cardiovascular physiology

- A. During a trip to the doctor's office, how could your doctor use both gross/macrosopic anatomy and microscopic anatomy? Please give examples.
- B. Describe the three different ways macroscopic anatomy is approached. Please give examples.
- C. Explain the two areas of study under microscopic anatomy. Why are these two areas found under microscopic anatomy?
- D. Describe one subdivision of physiology. Why is it a subdivision of physiology?
- E. What tools could you use to study anatomy?
- F. What levels do you concentrate on while studying physiology and why?
- G. Explain the principle of complementarity of structure and function and **give your own example**.

II. Levels of Structural Organization, pages 3-4

Define these terms: chemical level, cellular level, tissue level, organ level, organ system, organismal level

- A. Make **your own** drawing of the six structural organization levels in a human being (**do not just copy picture in the book**). Give a description next to each level starting with the smallest and ending with the largest.
- B. What is the smallest unit in your body and what is it made up of?
- C. List the four tissue types and give a brief description of each.
- D. How are organs different from tissues?
- E. Identify the eleven organ systems and write one sentence describing each.

III. Maintaining Life, pages 4-8

Define these terms: contractility, catabolism, anabolism, secretion (glossary)

- A. List and describe the eight necessary functions of life.
- B. What are the survival needs of your body? In other words, what are your body requirements?
- C. Is the presence of the survival needs enough to sustain life? Why or why not? Please give an example.

Continue to the next page →

IV. Homeostasis, pages 8-12

Define these terms: homeostasis, variable, receptor, control center, effector, afferent pathway, efferent pathway

- A. **Explain in your own words**, how the homeostatic control mechanism works.
Use the following scenario: the body pH gradually increases from the normal blood pH of 7.4. You may draw your own diagram if it helps. Before explaining, read the 3 paragraphs a few times to grasp the concept.
- B. Contrast briefly negative feedback and positive feedback. Give an example in the body of each.
- C. Why do we experience changes as we age?

V. The Language of Anatomy, pages 12-19

Define these terms: viscera, serosa

- A. Why do we use anatomical terms?
- B. Describe the anatomical position.
- C. Explain how you would identify the right and left sides of the fetal pig that you will be dissecting.
- D. Explain the difference between directional and regional terms. Please give an example of each.
- E. What is the difference between the axial and the appendicular divisions?
- F. Why do anatomists use body planes?
- G. What is a cavity? List the two main cavities of your body.