

## Anatomy & Physiology Honors Summer Assignment 2017-18

Bishop Verot Catholic High School

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I am looking forward to a great year in Anatomy & Physiology with all of you; however, in order to have the time to cover all of the systems of the human body, I will need you to read and study the chapters below. Do not feel overwhelmed since a couple of these chapters are biology review. Please read these chapters and be prepared for a series of short quizzes and test the first or second week of school. I will go over relevant material or answer any questions prior to the quizzes and test. The total assignment is worth 3 Homework grades. This doesn't seem like much but A & P is not a heavily laden HW course and more time is spent in studying the material. Three missing HW grades could have a great affect on the overall quarter grade! There is usually only 1 HW grade per chapter. **THIS SUMMER ASSIGNMENT IS DUE THE FIRST DAY OF SCHOOL. 20% WILL BE DEDUCTED FOR EACH DAY LATE UNTIL ALL POINTS ARE EXHAUSTED.**

### Chapter 1

1. After reading, **be able to answer** (make sure you understand the answers but do not have to physically submit) questions on pp. 5, 9, 12, 16, 19, and 21.
2. Pay close attention to material in Table 1.1, Figures 1.2, 1.3, and 1.5
3. The terminology in Table 1.2, Figures 1.6, 1.7, 1.8, and 1.9 will be used frequently throughout the school year.
4. **Answer questions 1-11 on p. 23.** These will be collected and count as a homework grade.

### Chapter 2 ( Biology review)

1. Read and **Check to be sure you are able to answer** questions on pp. 29, 32, 35, 39, 40, 41, 44, 48, and 50

### Chapter 3 (Biology review)

1. Read and **be able** to answer questions on pp. 62, 70, 80, 82, 87, and 92.
2. Review Figure 3.1, 3.2, 3.3, 3.5, 3.6, 3.8, 3.9, 3.10, 3.11, 3.12, and 3.13
3. Tables 3.1 and 3.2 provide excellent reference for organelles and transport.

### Chapter 4

1. Read Chapter 4 and be able to answer all the check point questions in the chapter.
2. Read the chapter and use the text **to fill in the tables on the next page.** This will be collected and counted as a homework grade.
3. **Answer Questions 1-14 on p. 131.** These will also be collected and count as a HW grade

I check my email regularly throughout the summer, so feel free to email if you have any questions.

Ch.4 Tables:

EPITHELIAL TISSUE

1. Define the 3 surface types found in epithelial cells:

Covering & Lining Epithelia

| <u>Cell Layer arrangements</u> | <u>Description</u> |
|--------------------------------|--------------------|
| <u>Simple</u>                  |                    |
| <u>Pseudostratified</u>        |                    |
| <u>Stratified</u>              |                    |

EPITHELIAL CELL SHAPES

| CELL SHAPE | Insert photo of CELL | SPECIALIZED FUNCTION |
|------------|----------------------|----------------------|
| SQUAMOUS   |                      |                      |
| CUBOIDAL   |                      |                      |

|              |  |  |
|--------------|--|--|
| COLUMNAR     |  |  |
| TRANSITIONAL |  |  |

#### TYPES OF EPITHELIAL TISSUE

| TYPE OF EPITHELIA<br>(insert photo in this column) | LOCATION | DESCRIPTION/FUNCTION |
|--|----------|----------------------|
| SIMPLE SQUAMOUS                                    |          |                      |
| SIMPLE CUBOIDAL                                    |          |                      |
| SIMPLE COLUMNAR                                    |          |                      |

|                              |  |  |
|------------------------------|--|--|
|                              |  |  |
| PSEUDOSTRATIFIED<br>COLUMNAR |  |  |
| STRATIFIED SQUAMOUS          |  |  |

#### 4.3 CONNECTIVE TISSUE

1. What are the 2 basic elements of connective tissue?
2. List some major characteristics of connective tissue?
3. What are the 6 types of cells found in all types of connective tissue?

### Types of Connective Tissue (CT)

| TISSUE TYPE   | DESCRIPTION/LOCATION/FUNCTION/PHOTO |
|---|-------------------------------------|
| <b><u>LOOSE CT:</u></b>                             |                                     |
| 1.AREOLAR C.T.                                      |                                     |
| 2.ADIPOSE   |                                     |
| 3.RETICULAR C.T.                                    |                                     |
| <b><u>DENSE C.T.:</u></b>                           |                                     |
| 4.DENSE REGULAR C.T.                                |                                     |
| 5.DENSE IRREGULAR C.T.                              |                                     |
| 6.ELASTIC C.T.                                      |                                     |
| 7.CARTILAGE:<br>A. HYALINE:<br><br>B. FIBROCARILAGE |                                     |

|                            |  |
|----------------------------|--|
| C. ELASTIC CARTILAGE       |  |
| 8. OSSEOUS TISSUE (BONE)   |  |
| <b><u>LIQUID C.T.:</u></b> |  |
| 9. BLOOD:                  |  |
| 10. LYMPH                  |  |

#### 4.4 TYPES OF MEMBRANES

| <b><u>EPITHELIAL MEMBRANES:</u></b><br><b><u>(3 TYPES)</u></b> | <b><u>DESCRIPTION/LOCATION/FUNCTION/PHOTO</u></b> |
|--|---|
| 1. MUCOUS  |   |
| 2. SEROUS  |   |

|                            |  |
|----------------------------|--|
| 3.CUTANEOUS                |  |
| <u>SYNOVIAL MEMBRANES:</u> |  |

#### 4.5 MUSCLE TISSUE

| TYPE OF MUSCLE | DESCRIPTION/LOCATION/FUNCTION/PHOTO |
|----------------|-------------------------------------|
| 1. SKELETAL    |                                     |
| 2. CARDIAC     |                                     |
| 3. SMOOTH      |                                     |