

Unit 1 – Topics to Know for Lecture

***Note: This is by NO means a comprehensive list, but it does emphasize the main topics for each chapter AND it tells you if there are any sections of the chapter that you may SKIP. We always skip “Developmental Aspects” Sections due to time constraints.

Chapter 1 – Intro to A&P:

- Use the **outcomes** listed at the start of each section as a guide to things that you should be looking for in each section of this chapter.
- 1.1: Compare and contrast anatomy and physiology
- 1.2: Levels of organization in the body
- 1.3: Necessary life functions and body systems
- 1.4: Homeostasis and Negative vs. positive feedback
- 1.5: Terms you better know...they keep coming back all semester and in BIOL 213!
- 1.6: Body cavities – know all of the cavities as well as what is found in them. Also learn about serous membranes...what are they and why are they important?
- Use the “Check Your Understanding” questions at the end of each section within the book to break up your video watching and to determine if you are getting anything out of the time you are spending with the videos. If you cannot answer these without the book and your notes, you may need to take a break before going back to the videos.
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Chapters 2 and 3:

- ALL Montgomery College A&P classes skip these chapters because they are full of information you should know from BIOL 150. Chapter 2 is related to chemistry and Chapter 3 is related to the cell. If you find the book talking about something like mitochondria or proteins and you don't remember what those are, go back to those portions of Ch. 2 and 3 to refresh your memory.

Chapter 4 - Tissues:

- Use the **outcomes** listed at the start of each section as a guide to things that you should be looking for in each section of this chapter.
- 4.1: What are the 4 major classes of tissues? What are their functions? This section also talks about how tissues are prepared for histology (study under the microscope) which is important to know for lab.
- 4.2: Epithelial Tissues
 - What are the 2 main subtypes for this tissue class? What are their functions?
 - What are the characteristics of this tissue class?
 - Classification of epithelial tissues?
 - Know ALL of the different types, where they are found, AND their functions.
 - Only focus on the types of glands discussed in the PowerPoint file.
- 4.3: Connective Tissues

- What are the characteristics of this tissue class?
- What are the “structural elements” of this tissue class?
- There is a lot of variability with the different types of tissues here...why are they all grouped together??
- What are the main subtypes for this tissue class?
- Know ALL of the different types, where they are found, AND their functions.
- 4.4: Muscle Tissues
 - What is the function of this tissue class?
 - Know ALL of the different types, where they are found, AND their functions.
- 4.5: Nervous Tissue
 - What is the function of this tissue class?
 - Know where it is found, AND be aware of the different cell types.
- 4.6 & 4.7: Interesting information, but WE WILL NOT be discussing these sections in class so you will not be tested on them.
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Chapter 5 - Integument:

- Use the **outcomes** listed at the start of each section as a guide to things that you should be looking for in each section of this chapter.
- Intro section & 5.1:
 - Define integument. What are its functions?
 - What are the major layers of it, how are they arranged, and what is found in each of them?
 - What are the accessory structures?
 - Hypodermis - Know characteristics and function.
- 5.2: Epidermis
 - What specific cells are found in it and what are their functions?
 - What are the sublayers (strata) and know characteristics about them (see PowerPoint for most important). How are they arranged? What cells are found in them and how do the cells change as they move through them?
 - How does this layer change in thick vs. thin skin?
- 5.3: Dermis
 - What specific cells are found in it and what are their functions?
 - What are the sublayers and know characteristics about them (see PowerPoint for most important). How are they arranged? How are they different?
 - How does this layer change in thick vs. thin skin?
 - Friction ridges

- Cleavage lines
- Learn about pathologies discussed in the PowerPoint.
- 5.4: What creates skin color? Also, read about skin color pathologies discussed in PowerPoint.
- 5.5: Hair-Minimal information covered here...focus on points emphasized in the PowerPoint.
 - What are the different types of hair and where are they found?
 - Know how the hairs grow, why hair growth is different in different areas, and how its growth is similar to growth in the epidermis.
- 5.6: Nail-Minimal information covered here...focus on points emphasized in the PowerPoint.
- 5.7: Glands
 - Study types discussed in PowerPoint.
 - Where are they found and what are their functions?
 - How is the method of liquid release different for the various glands and how are the liquids that they produce different?
 - Study pathologies discussed in PowerPoint.
- 5.8: Skin Functions
 - Know all functions and why they are important.
- 5.9: Pathologies
 - Cancer - Types, how diagnosed, and how treated?
 - Burns - Types, how diagnosed, treatment, and Rule of Nines.
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Chapter 6 - Osseous Tissue and Bone Structure:

- Use the **outcomes** listed at the start of each section as a guide to things that you should be looking for in each section of this chapter.
- Cartilage (bone padding and helps bone grow) = Not in this chapter, but focus on info. in PowerPoint.
- 6.1: Bone growth begins with cartilage
 - Know where different types of cartilage are found and why.
 - Understand different forms of growth.
- 6.2 & 6.3: Bone functions and classification/organization of bones.
 - Also, know shapes and markings
- 6.4: Bone composition and cell types
 - Compact vs. spongy bone – know all parts
 - Know connective tissues associated with bone as well as the different types of bone marrow and where they are located.
 - Common bone markings - focus on the ones from the PowerPoint
 - Know cell functions

- Microscopic anatomy
 - Chemical composition of bone
- 6.5: Interesting information, but WE WILL NOT be discussing this section in class so you will not be tested on it.
- 6.6: Bone remodeling
 - Deposition vs resorption
 - How are these processes regulated?
 - What kind of feedback is involved here?
- 6.7: Bone repair and fractures
 - What are the different types of fractures and how do they typically occur?
 - Know the stages of bone healing and approx. how long each stage takes.
- 6.8: only focus on pathology discussed near end of PowerPoint.
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