

Unit 2 – 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 8 – Articulations:

- 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.
- 8-1, 8-2, and 8-3: Joint classification – by range of motion AND structure (Table 8-1 is good for this too)
- 8-4: Detailed information on synovial joints – features of these joints as well as their accessory structures.
 - Study all synovial joint movements.
 - As you do this, be sure to think of specific joints that move in these ways.
 - Can you think of any that the book and video don't describe?
- 8-5: Focus on the shoulder and knee (we will not have time for the temporomandibular, elbow, or hip joints)
- 8-6: Focus on Dislocations (Luxations), Osteoarthritis, Rheumatoid Arthritis, and Gouty Arthritis in this section.
 - What are the conditions?
 - What causes them?
 - How are they treated?
- 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.
- If you are having trouble understanding the YouTube video or knowing what is MOST important, go to the book and use the “Learning Outcomes” at the start of each section as questions that the videos should answer.

Chapter 9 – Muscle Tissue:

- 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.
- 9-1: Start by thinking about the 3 different types of muscle. Be sure to compare them to each other!
 - Characteristics of all muscle tissue
 - Muscle functions...it is more complicated than what we discussed when we introduced it in tissues.

- 9-2 and 9-3: Skeletal Muscle Anatomy = 9-2 Gross anatomy and associated tissues, 9-3 Microscopic anatomy...make sure you know the sarcomere well!!
- 9-4 and 9-5: Skeletal Muscle Physiology
 - Control of skeletal muscle contraction happens in 3 phases: Excitation (events at the plasma membrane that are dependent upon neurons), Excitation-Contraction Coupling, and Contraction (events at the sarcomere)
 - If you do not remember how ion channels work or why they are needed, be sure to look back over this in Chapter 3!!
 - Also learn about tension, tone, twitches, and different types of contractions.
- 9-6: Skeletal Muscle Metabolism
 - What are the different mechanisms for skeletal muscle to generate ATP?
 - When does the muscle use these different mechanisms?
- 9-7: What influences speed, length, and strength of contraction?
 - Force (strength) of contraction
 - Velocity (speed) and duration (length) of contraction
 - Types of Skeletal Muscle Fibers
 - Load and Recruitment
- 9-8: Interesting information, but we don't have time for it.
- 9-9: Potential area for bonus questions...focus on areas that correspond with PowerPoint slides.
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