

## Unit 4 – 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 13 - Sensory Pathways and the Somatic Nervous System:

- 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.
- 13.1: Types of Sensory Receptors
  - Know all classifications as well as their functions and where located.
- 13.2: How Sensory Receptors Work
  - How are sensory signals transmitted in the nervous system?
  - Learn about receptive field, transduction, and adaptation.
  - Processing, Adaptation, Sensation of Pain, and Referred Pain
- 13.3: Nerve Fiber Anatomy and Nerve Repair
- 13.4: Cranial Nerves
  - Know their names and numbers.
  - Know if they have sensory, motor, or mixed function.
  - Understand general functions for each cranial nerve (the picture in the PowerPoint may help with this)
    - Pay special attention to the Vagus Nerve
- 13.5 & 13.6: SKIP; Interesting information, but we don't have time for it so it will not be on the exam.
- 13.7: Motor Endings & Motor Activity
  - We are focusing on levels of command for somatic output. Routing of Sensory Info.
- 13.8 & 13.9: Spinal Reflexes
  - Focus on the 5 basic components of a reflex arc.
  - Understand specific reflexes from PowerPoint (such as the stretch reflex). Know why they are important and differences between the types of neurons involved in them.
- 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 14 - Autonomic Nervous System (ANS):**

- 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.
- 14.1: ANS Definition and comparison to Somatic Nervous System
- 14.2 & 14.6: Compare and Contrast Divisions of the ANS
  - Be able to compare and contrast Sympathetic (Symp.) and Parasympathetic (Parasymp.) divisions
  - The majority of what we will do is **compare** the receptors and fibers in Symp vs. Parasymp. Divisions.
  - Know what types of neurotransmitters act on/are released by different areas in both Symp. and Parasymp.
- 14.3 & 14.4: SKIP; Interesting information, but we don't have time for it so it will not be on the exam.
- 14.5: Visceral Reflexes – can focus mostly on information from PowerPoint here.
- 14.7 Other physiology related to the ANS
  - Dual Innervation, cooperative effects, and exceptions
  - Tone
  - Unique roles
  - Localized vs. diffuse effects
- 14.8 & 14.9: Interesting information, but WE WILL NOT be discussing this section in class so you will not be tested on it.
- 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.