**N3- Week 5: Nervous system**

Chapter 12 Nervous tissue

* Organization of the nervous system
* Functions of the nervous system
* Describe characteristics and functions of neurons and neuroglia
* Describe how impulses are generated and propagated in neurons
* Describe signal transmission in synapses
* Identify major neurotransmitters and their functions

Chapter 13 Spinal Cord and Spinal Nerves

* Describe the protective structures and the gross anatomy of the spinal cord.
  + Meninges
  + Gray and white matter
* Describe how spinal nerves are connected to the spinal cord.
  + Define a plexus and the general functions of the cervical, brachial, lumbar and sacral plexuses
  + Significance of dermatomes
* Describe the functional components of a reflex arc and describe the reflex arc and examples

Chapter 14 The Brain and cranial nerves

* Major parts of the brain- cerebrum, cerebellum, diencephalon, midbrain
* Description and functions of the blood-brain barrier
* Functions of the cerebrospinal fluid
* Describe the functions and structures in the brainstem and reticular formation
* Describe the parts and functions of the diencephalon
* Describe the gross anatomical and functional areas of the cerebrum (including basal nuclei and limbic system) and their functions
* Identify and give the functions of the cranial nerves

Chapter 15 Peripheral Nervous System

* Difference between somatic and autonomic nervous system
* General anatomic and functional (effects) differences between parasympathetic and sympathetic divisions of the autonomic nervous system

Chapter 16 Sensory and Motor Integrative systems

* Define sensation, the different types of sensory modalities and discuss the components of sensation.
* Describe the different ways to classify sensory receptors.
* Describe the location and function of the somatic sensory receptors for tactile, thermal, and pain sensations.
* Identify the receptors for proprioception and describe their functions.

Chapter 17 Special Senses

* Identify the various structure of the eyes and ears
* Describe the receptors for olfaction, gustation, vision, hearing, and equilibrium
* Discuss the following pathways: gustatory, visual, hearing, and equilibrium