**Objectives for the Neuroanatomy component of the Master’s Comprehensive examination:**

1. Understand the basic aspects of neuronal anatomy and the implications of the neuron doctrine
2. Compare and contrast the main aspects of myelination between the central and peripheral nervous system
3. Know the spatial relationship between the dural reflections and the CNS
4. Know the anatomical relationships among the vessels of the Circle of Willis and their perfusion domains; identify the main branches of the internal carotid artery and the cerebral areas they supply
5. Outline the flow of CSF through the ventricular system from production to purging
6. Outline the location in the spinal white matter of the major ascending and descending tracts and recognize the information being conveyed by each tract
7. Recognize the importance of the organization of spinal cord gray matter into its different laminae
8. Know the brainstem location of the cranial nerve nuclei
9. Compare and contrast the key identifying features of the different segments of the brainstem
10. Know the roles, components, and targets/sources of the cranial nerves with mixed functions (V, VII, VIII, IX, X)
11. Know the function of the thalamic nuclei and know the systems with which each nucleus is associated
12. Describe what deficits will be experienced by patients suffering from lesions to the major cortical regions
13. Identify the features of all levels of the neuraxis in transverse and axial sections
14. Know the circuitry of the parallel processing systems underlying each of the principal sensory systems (vision, audition, and somatosensation)