**Bio 322 – Human Anatomy**

**Objective list for Nervous System**

1. **Exercise #15**
	1. **Read and understand written material.**
	2. **Understand different divisions/subdivisions of nervous system**
	3. **Examine nervous tissue on microscope (slide #17 and Figure 15.3)**
		1. **Identify neuron (soma, axon, dendrite) and be able to differentiate between what is a neuron and what is a glial cell. Don’t need to try to identify specific glial cells.**
	4. **Recognize different neuron shapes (Figure 15.5)**
2. **Exercise #17**
	1. **Read and understand written material relating to: meninges, ventricles of the brain**
		1. **Know and understand Figure 17.3 of lab book and 15.3 of textbook**
	2. **When studying the brain anatomy we will focus on the structural anatomy of the brain as opposed to the functional anatomy of the brain.**
		1. **Refer to Figures 17.6, 17.8, 17.7, 17.10. 17.12**

**EXTERNAL ANATOMY OF THE BRAIN**

FIGURES : 17.6, 17.7, 17.8, 17.10 and models

(Textbook illustrations 15.1, 15.2, 15.9, 15.12)

 Cerebellum

 Pons

 Midbrain

 Medulla Oblongata

 Cerebrum: Gyrus

 Sulcus

 Lateral sulcus or fissure

 Central sulcus

 Frontal lobe

 Parietal lobe

 Occipital lobe

 Temporal lobe

 Olfactory tract

 Precentral gyrus

 Postcentral gyrus

 Longitudinal fissure

 Right and left hemispheres

 Parieto-occipital sulcus

**INTERNAL ANATOMY OF THE BRAIN**

FIGURES : 17.10 and brain models

(Textbook figure 15.2)

 Cerebrum

 Cerebellum

 Corpus callosum

 Thalamus

 Hypothalamus

 Midbrain

 Pons

 Medulla oblongata

 Pituitary gland

 Third ventricle (ventricle models)

 Mesencephalic (Cerebral) aqueduct

 Fourth ventricle

 Arbor vitae (cerebellum)

**VENTRICLES AND CIRCULATION OF CEREBROSPINAL FLUID:**

FIGURES : 17.3, brain and ventricle models. ALSO, be sure to look at Figure 15.4, 15.5 from your textbook which illustrates the flow of CSF and the location of choroid plexuses.

 Lateral ventricles *(visible on ventricle models, but not on brain models)*

 Third ventricle

 Fourth ventricle

 Cerebral aqueduct

 Interventricular foramen (not really seen on models)

 Choroid plexus within each ventricle *(Visible for 3rd and 4th ventricle on ventricle models)*

 Subarachnoid space

 Arachnoid villi (singular = villus) (Figure 15.4, 15.5 from textbook)

**Meninges**

FIGURE 15.3 of TEXTBOOK

Dura mater (meningeal, periosteal layers)

Arachnoid mater

Pia mater

Subdural space

Subarachnoid space

Falx cerebri

Falx cerebelli

Tentorium cerebelli