[redacted] Audio Lecture files

File	Topics	Corresponding PowerPoint slides
Chapter 12		
Nervous System Overview	Nervous system function	3
Subdivisions 1	Nervous system subdivision; CNS; PNS; nerves; neurons	4, 5
Subdivisions 2	Nerves, ganglia	4, 5, 9, 11
Functional Divisions	Sensory vs. Motor; visceral vs. receptors, effectors	6
Functional Divisions 2	Visceral vs. somatic; effectors	6
Types of Neurons	Somatic sensory vs. visceral sensory; somatic motor effectors vs. visceral motor effectors; ANS; types of neurons – sensory, motor and interneurons	7-9
Properties of neurons	Properties of neurons – excitability, conductivity and secretion	10
Structure of a neuron	Multipolar, bipolar, unipolar and anaxonic neurons; types of neuroglial cells, myelin	11-13, 16-18
Myelin	Myelin, nodes of Ranvier, axon hillock, speed of a nerve signal, Multiple Sclerosis	19-25
Electrical Potential	Nerve pathway, neuronal signal, electrical potential and currents, strong stimulus=more AP's	29
Electrical Potential 2	diffusion, polarized, charge distribution across membrane, ions, anions, cations, electrolytes	29
Resting Membrane Potential	resting potential, concentration of sodium and potassium inside and outside of the neuron, diffusion, concentration gradients, threshold, selective permeability, cytoplasmic anions, Na+/K+ pump	30-32
Sodium Gates	Cause and effect of Na+ gates opening, receptors and types of gates, threshold, action potential	32
Local Potentials	Local potentials vs. action potentials, where AP's and LP's occur, trigger zone, synaptic transmission, electrical vs. chemical (concentration) gradient	32-33
Local Potentials 2	Excitatory signals vs. inhibitory signals, types of receptors, action potentials, All or None Law, refractory period	33-38
Action Potential	Steps of the Action Potential	36
Synapse	Saltatory conduction, synapses between neurons	41-44