

Review List - Psy100 – Section I
(Chapters 1,2,3,4)

1. **Chapter 1.** Be able to explain what critical thinking is. Understand the guidelines to thinking critically well enough to recognize violations.
2. Understand the following: empirical evidence, structuralism, functionalism. Who was Wilhelm Wundt? Understand the 5 modern perspectives. Understand humanist psychology and feminist psy.
3. Know what psychologists do. Know the basic difference between basic and applied psy. What's the difference between clinical psychologists, psychoanalysts, psychotherapists, and psychiatrists?

4. **Chapter 2.** Understand the characteristics of the ideal scientist.
5. Understand the following: descriptive methods, case studies, observational studies, objective tests, standardized tests, reliable, valid, surveys, representative samples, volunteer bias, hypothesis, theory, operational definition, principle of falsifiability, confirmation bias, critical periods for language.
6. Understand what a correlation coefficient is and the difference between a negative and a positive correlation. Know what a correlational study is and whether it tells you anything about causation.
7. Understand the following: independent and dependent variables, experimental and control conditions, random assignment, placebo, experimenter effects, single-blind and double-blind studies.
8. Understand the difference between descriptive and inferential statistics.
9. Understand the following: the mean, standard deviation, significance tests, statistically significant results, cross-sectional and longitudinal studies, meta-analysis, informed consent.

10. **Chapter 3.** Understand genes, chromosomes, DNA, genome, evolutionary psychology, behavioral genetics, linkage studies, genetic markers, evolution, natural selection. Understand and be familiar with innate human characteristics. Understand the nature of language, surface vs. deep structure. Know the support for a language acquisition device. Understand sociobiology, sexual strategies, heritability and facts about it, monozygotic and dizygotic twins, IQ, heritability of IQ test performance. Understand the research on group differences in intelligence. Know the effects of genes and the environment on intelligence. Know what the eugenics movement was.
11. **Chapter 4.** Understand the following: CNS, spinal cord, spinal reflexes, PNS, sensory and motor nerves, somatic N.S., A.N.S., sympathetic and parasympathetic N.S., stem cells, neurogenesis, neurons and their structures, nerve impulse transmission in babies, glial cells, nerves, synapses, synaptic cleft, neurotransmitters, action potential, synaptic vesicles, receptor sites. Understand the effects of: serotonin, dopamine, acetylcholine, norepinephrine, GABA, endorphins. Understand hormones, specifically: melatonin, adrenal hormones, sex hormones.
12. Know what the following are: electrodes, lesion method, EEG, PET scan, MRI. Know the following brain structures: brain stem, medulla, pons, reticular activating system, cerebellum, thalamus, hypothalamus, pituitary gland, limbic system, hippocampus, amygdala, cerebrum, cerebral hemispheres, lateralization, corpus callosum, the 4 cortical lobes and their functions, Broca's and Wernicke's area, association cortex. Understand the results of split brain research.
13. Understand the findings with regard to sex differences in the brain. What are the effects of diet on neurotransmitters?
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Lecture

1. Know: definition of psychology, schools of psychology, specialties within psychology, and reasons for studying nonhuman behavior.
2. Know the reasons for studying at the level of the neuron.
3. Understand: lateralization, functions of the hemispheres, and the corpus callosum
4. Know all the parts of the neuron and be able to explain the course of a nerve impulse starting with the effects of neurotransmitters docking at receptor sites, then ion flow and subsequent initiation at the axon hillock, flow of the impulse down the axon and finally its effect on a neighboring neuron. Understand the following: action potential, EPSP, IPSP, depolarization, hyperpolarization, resting electrical potential.