

Psychology 101 Study Guide, Exam #1

Chapter 1: The Science of Mind

- I. **Psychology**
 1. **What is psychology?**
 2. **Scientific study**

- II. **Ways of Classifying Psychologists**
 1. **Training**
 - A. Clinical Psychology
 - B. Cognitive Psychology
 - C. Developmental Psychology
 - D. Evolutionary Psychology
 - E. Social Psychology
 - F. Biological Psychology
 2. **Research interests (species, time, type of behavior).**
 3. **Field of Study**

- III. **Psychology Subfields**
- IV. **Common Sense/ Intuition vs. Psychological Science**
 1. Naïve Realism
 2. Intuitions on Free Will

- V. **History of Psychology**
 1. **Structuralism**
 2. **Functionalism**
 3. **Gestalt Psychology**
 4. **Neurobiological**
 - A. Brain-behavior
 - B. Genetic Influences
 5. **Behavioral**
 6. **Cognitive**
 7. **Psychoanalytic**
 8. **Phenomenological**
 9. **Bio-psycho-social perspective**
 10. **Introspection**

- VI. **Research Methods**
 1. **Scientific Skepticism**
 - A. Critical Thinking
 2. **Experimental Method**
 - A. Experiment/Control Groups
 - B. Independent Variable

- C. Dependent Variable
- D. Hypothesis
- E. Theory
- F. Confounding
- G. Random Assignment
- H. Blinding

3. Descriptive Statistics

- A. Mean, Median and Mode
- B. Correlation
- C. Variability
- D. Validity
- E. Reliability
- F. Normal Distribution

VII. Research Methods

- 1. Experimental**
- 2. Observational**
- 3. Survey**
- 4. Test**
- 5. Case Histories**
 - A. Retrospective
 - B. Longitudinal/prospective
- 6. Behavioral Genetic Approaches**
 - A. Family studies
 - B. Twin studies
 - C. Adoption Studies

VIII. Measurement in Psychology

- 1. Experimental Design**
 - A. IV, DV
 - B. Experimental group vs control group
 - C. Control over extraneous confounds
 - D. Placebo effect
- 2. Inferential Statistics**
 - A. Mean
 - B. Median
 - C. Mode
 - D. Variance/Standard Deviation (The Normal Distribution , Skew)
 - E. Statistically significant differences
- 3. Statistical Significance**
- 4. Measurement in Psychology**
 - A. Correlation
 - B. Coefficient of correlation (r)
 - 1) Positive
 - 2) Negative
 - 3) None

Key Terms from the textbook:

- behaviorism,
- biological psychology,
- case study,
- clinical psychology,
- cognitive psychology,
- control group,
- correlation,
- critical thinking,
- culture,
- dependent variable,
- developmental psychology,
- evolutionary psychology,
- experiment,
- experimental group,
- functionalism,
- Gestalt psychology,
- humanistic psychology,
- hypothesis,
- independent variable,
- individual differences,
- introspection,
- mean,
- median,
- mind,
- mode,
- naturalistic observation,
- normal distribution,
- personality,
- psychology,
- random assignment,
- reliability,
- science,
- social psychology,
- structuralism,
- survey,
- theory,
- validity,
- variability,

Chapter 2: The Biological Mind

IX. Biological Bases of Psychology

1. The Nervous System

- A. The Peripheral Nervous System
- B. The Central Nervous System

2. Anatomy of a neuron

- A. Cell body (soma)

- B. Dendrites
- C. Axon
- D. Terminal buttons
- E. Myelin sheath

3. Three types

- A. Sensory
- B. Motor
- C. Interneuron

4. Nerve

5. Axonal conduction

- A. Resting potential
- B. Depolarization and threshold
- C. Action potential
- D. Propagation
- E. Refractory period

6. Action Potential Properties

- A. All-or-none Response

7. Two types of signal transmission

- A. Axonal
- B. Synaptic

8. Synaptic transmission

- A. Synaptic gap or cleft at the synaptic junction
- B. Synaptic vesicles
- C. Post synaptic receptor cells

9. Lock and Key Mechanism

10. Synaptic transmission

- A. Types of Postsynaptic Potentials (PSP's)
 - i. Excitatory (EPSP)
 - ii. Inhibitory (IPSP)
- B. After release
 - i. Re-uptake
 - ii. Degradation

X. Organization of the nervous system

1. Central nervous system

- A. Brain
- B. Spinal cord

2. Peripheral nervous system

- A. Somatic system
- B. Autonomic system
 - i. Sympathetic NS (flight or fight)
 - ii. Parasympathetic NS (rest and digest)

XI. The common household brain

1. Overview of brain

- A. The primitive central core
- B. Limbic system
- C. Cerebrum (AKA cerebral hemispheres)
 - Ontogeny
 - Phylogeny Bio Bases

2. Specifically,

1. Primitive central core
 - a. Cerebellum
 - b. Thalamus: "Gateway to the cortex"
 - c. Hypothalamus: 4 F's
2. Reticular system
3. Limbic system
 - a. Hippocampus
 - b. Amygdala
4. The cerebral hemispheres
 - a. Grey matter vs white matter
 - b. Four lobes: (frontal, parietal, occipital, temporal)
 - c. Motor area (Homunculus and contralateral control of body)
 - d. Somatosensory area
 - heat, cold, touch, pain
 - contralateral
 - topographic organization—Homunculus
 - e. Visual area
 - Primary vs. Secondary
 - Contralateral visual field
 - f. Auditory area
 - bilateral representation
 - contralateral stronger
 - g. Association areas
 - h. Phylogeny of Association Cortex

Key Terms from the Textbook:

- action potential,
- amygdala,
- autonomic nervous system,
- axon,
- basal ganglia,
- biological psychology,
- brainstem,
- cell body,
- central nervous system (CNS),
- cerebellum,
- cerebral cortex,

- cingulate cortex,
- corpus callosum,
- dendrite,
- endocrine system (ES),
- frontal lobe,
- hippocampus,
- hypothalamus,
- medulla,
- midbrain,
- myelin,
- neuron,
- neurotransmitter,
- nucleus accumbens,
- occipital lobe,
- orbitofrontal cortex,
- parasympathetic nervous system,
- parietal lobe,
- peripheral nervous system (PNS),
- pons,
- prefrontal cortex,
- receptor,
- resting potential,
- reticular formation,
- reuptake,
- somatic nervous system,
- spinal cord,
- sympathetic nervous system,
- synapse,
- temporal lobe,
- thalamus,