Psychology 1000 Study Guide Exam 1

Format: 96 points. Multiple Choice. Exam is during regular class time. Please memorize your student number.

Text Material Covered on Exam
Chap 1: You are responsible for all material, even if not covered in class.
Focus on the topics below:
- What is Psychological Science; What to Believe
- Scientific Foundations: Mind/Body problem; Nature/nurture debate; Evolution & psychology
- Schools of Psychology: Be able to identify the concepts of major schools (e.g. behaviorism; functionalism; cognitive psychology; gestalt) and to identify the psychologist associated with each (e.g., Watson; James; Freud; Wundt)

Chap 2: Again, you are responsible for all material in this chapter. Most was also covered in class.
Topics covered include
- Scientific Inquiry (scientific method, theory, goals, etc)
- Types of Studies (descriptive, correlational, & experimental)
- Data Collection Methods (observational; case studies, etc. Know Hawthorne effect; Experimenter Expectancy Effect; self-report bias)
- Ethical Issues with research (informed consent; privacy; deception; etc)
- Data Analysis and Evaluation (internal vs. external validity; correlations; inferential statistics; descriptive statistics)

Chap 3: Focus on material from 89-126, especially material we also covered in class.
Focus on the topics below:
- Basic Brain structures & functions (Any brain structure not also covered in class will NOT be on Exam)
- Genetic Basis (genotype vs phenotype; behavioral genetics methods)
- Gender differences
- Plasticity: (phantom limb; taxi drivers; radical hemispherectomy)

Lecture Material: Be able to define or identify the terms listed below

I. Thinking like a psychologist
- Scientific Thinking vs, Motivated Reasoning
- Co- in-cidence
- Heuristics: Definition and examples of recall heuristics; confirmation heuristics; availability heuristics; gambler’s fallacy

II. Scientific Method and Research Designs
- Scientific Method: definition of Theory, Hypothesis, Research; Steps in Scientific Method: Darwin & Natural Selection Example
- Characteristics of a good theory: falsifiable, parsimonious, testable hypotheses; Characteristics of a “true” theory
- Goals of Psychology: describe, explain, predict, control; which research designs are appropriate for each goal
- Types of Psychological Research Designs (know pros & cons of each type):
- Descriptive Studies:
  - case study
  - naturalistic vs. participant observation: reactivity; observer bias; ethical concerns
  - self-report measures: potentials barriers to accuracy
- Correlational Studies: positive vs. negative correlations; problems (directionality; third variable); correlation co-efficient; why design is useful
- Experimental Designs: independent, dependent, and confounding variables; experimental vs. control group; random assignment vs. random sampling; confounding variable; selection bias; experimenter expectancy effect (Rosenthal Effect) & how to prevent it
- Inferential statistics: what does statistically significant mean?

III. Brain & Behavior
- Structures of the Brain: Cerebral Hemispheres; Brainstem: Corpus Callosum; cortex
- Cortex: Gyri vs. Sulci; Lobes and their Function: Frontal; Parietal; Temporal; Occipital
- Techniques: case study; correlational techniques (EEG recording techniques; intracranial recording; imaging techniques); Experimental brain activation-inactivation techniques (intracranial stimulation; TMS; optogenetics)
- Know individual case studies like Phineas Gage, Broca’s area, Wernicke’s area; neglect, phantom limb; Blindsight; Alexia
- Phrenology: definition & problems
- Genetic Basis (genotype vs phenotype; behavioral genetics methods; twin vs. adoption studies; three laws of behavioral genetics)
- Plasticity: (gender differences; phantom limb; radical hemispherectomy; neurogenesis)