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 Designs (descriptive, correlational, & experimental)
- Data Collection Methods (observational; case studies, self-report; correlational; experiments; quasi-experiments) Know Reactivity; 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)
- Behavioral Genetics (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-incidence
- 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: potential barriers to accuracy
  - Correlational Studies: positive vs. negative correlations; problems (directionality; third variable); correlation coefficient; why design is useful
  - Experimental Designs: independent, dependent, and confounding variables; experimental vs. control group; random assignment vs. random sampling; confounding variable; selection bias; observer bias & how to prevent it
  - Quasi-Experimental studies: why are they used; problems
  - 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)

Assigned Video: Prisoners of Silence