20203-24 Summer Assignment Scientific Foundations of Psychology

10-14% of AP Exam

Quiz on content 1st week of school

All work MUST BE HANDWRITTEN

AP Psychology

Western Tech

Mr. Pagliarini

Mr. Slepesky

Textbook Readings:

- **Prologue: Pp. 1 – 12**
- **Chapter 1: Research and Statistics (Pp.15-45)**

Purpose:

- This guide is not only a place to record notes as you read but also to provide a place and structure for reflections and analysis using your noggin (thinking skills) with new knowledge gained from the reading. This guide is to be completed in its entirety by the beginning of class on the due date. Mastery of the course and AP exam await all who choose to process the information as they read/receive.

Essential Questions:

- How does the methodology of the research affect the outcome of a study?
- How do ethical guidelines impact psychological research?

Learning Objectives:

A. Recognize how philosophical and physiological perspectives shaped the development of psychological thought.

B. Identify the research contributions of major historical figures in psychology.

C. Describe and compare different theoretical approaches in explaining behavior.

D. Recognize the strengths and limitations of applying theories to explain behavior.

E. Distinguish the different domains of psychology.

F. Differentiate types of research with regard to purpose, strengths, and weaknesses.

G. Discuss the value of reliance on operational definitions and measurement in behavioral research.

H. Identify independent, dependent, confounding, and control variables in experimental designs.

I. Describe how research design drives the reasonable conclusions that can be drawn.

J. Distinguish between random assignment of participants to conditions in experiments and random selection of participants, primarily in correlational studies and surveys.

K. Predict the validity of behavioral explanations based on the quality of research design.

L. Apply basic descriptive statistical concepts, including interpreting and constructing graphs and calculating simple descriptive statistics.

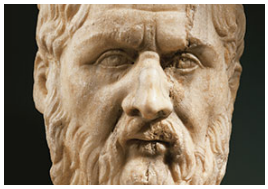
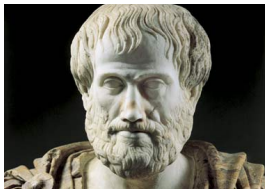
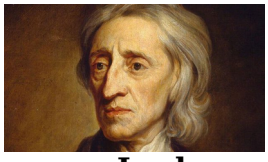
M. Distinguish the purposes of descriptive statistics and inferential statistics.

N. Identify how ethical issues inform and constrain research practices.

O. Describe how ethical and legal guidelines protect research participants and promote sound ethical practice.

The Field of Psychology NOTES

What is **Psychology?**

Roots: How did each of the following philosophers help with the beginnings of Psychology? (provide applicable terms)	
 **Plato**	 **Aristotle**
 **Descartes**	 **Locke**

Science: How did each of the following help Psychology become a science? (provide applicable terms)

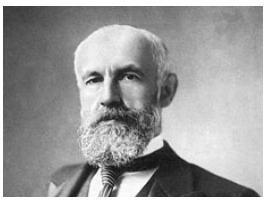
 **Wilhelm Wundt**	 **Edward Titchener**

William James

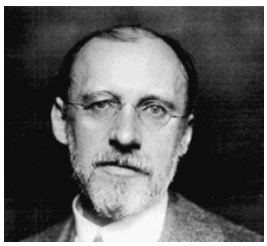
Mary Whiton Calkins

Margaret Floy Washburn

Dorthea Dix

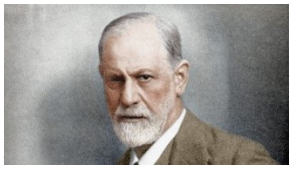


G Stanley Hall



Max Wertheimer

John Watson



Sigmund Freud

Modern Approaches: How have these modern approaches help us understand human and animal behavior and the human mind? (provide applicable terms and names)

Perspective	Explanation (what causes behavior)	Important Person/People
Psychoanalytic		
Behavioral		

Cognitive		
Humanistic		
Sociocultural		
Biological/ Neurobiological/ Physiological		
Evolutionary		

Biopsychosocial		

Subfields and Careers: Explain the differences between the two different categories? Give examples.	
Applied:	**Basic:**

Research Methods NOTES

Scientific Method in Psychology: Complete the following section. (provide applicable terms)	
Define: Scientific Method	**Define:** Empirical Data
What are the 4 general goals of psychological science? 1. 2. 3. 4.	What is a **Hypotheses**? (Be sure to use 'variables' and 'theory' in your explanation)

Describe what **Methodology** is and what role **operational definitions** and **replication** play.

Experimental Method: How does this method show 'cause and effect?'

Provide an example of an experimental hypothesis using an 'if-then' statement.

Provide the definition for each of the following and then explain which part of your hypothesis is the IV and the DV.

The 'if' part → **Independent Variable (IV)**	The 'then' part → **Dependent Variable (DV)**

Population and Samples	**Groups and Causality**
Define each of the following and then give an example from if applicable.	
Population:	**Experimental Groups:**
Generalize:	**Random Assignment:**

Representative Sample:

Sampling Bias:

Random Sample:

Stratified Sampling:

Sample:

External Validity:

Experimental Design:

Internal Validity:

Confounding Variables:

Placebo and Experimenter Bias

Placebo Effect:

Single-Blind Study:

Double-Blind Study:

Experimenter Bias:

Correlational Studies: What is the purpose of a correlational study?

What is a **scatterplot?**

Define **Positive Correlation** and provide an example below.

Define **Negative Correlation** and provide an example below.

Define **No Correlation** and provide an example below.

What is an **Illusory Correlation** and give an example.

What is a **third variable problem**?

Advantages of correlation studies	**Disadvantages of correlational studies**

Descriptive Research: Define each of the following and give real-life examples of each. (Provide Advantages and Disadvantages for each)

Naturalistic Observation	
Case Studies	
Surveys	
Interviews	
Developmental Research Designs	

Ethical Guidelines: Define each of the following and give an example of how it might be violated.
Who is the Institutional Review Board (IRB)?

Informed Consent:	**Deception:**
Confidentiality:	**Animal Research:**

What is **Hindsight Bias**? Give an example of how we see it on a daily basis.

Statistics NOTES

What is the role of **Statistics**?

What is a **data set**?

Descriptive Statistics: Define.

Define **Frequency Distribution**:	Put the following #s in the frequency distribution box below: - 10, 25, 30, 15, 30, 45, 45, 30, 20, 10, 5, 30, 40, 35, 40, 50, 10, 5, 15, 10

Frequency Distribution Table	
# of Mins Studied	Frequency

Define each of the following terms.

Types of Data and Scales of Measurement	**Displaying Data** (provide picture example)
Discrete Data: - **Nominal Scale:** - **Ordinal Scale:** **Continuous Data:** - **Interval Scale:**	**Pie Chart:** **Bar Graph:** **Histogram:**

- **Ratio Scale:**	**Frequency Polygon:**

Measures of...	
...Central Tendency: Define each of the following.	**...Variability:** Define each of the following.
Use the following #s and write the answer to each in the box below. - 1, 3, 3, 3, 5, 7, 7, 9	
Mean:	**Range:**
Median:	**Variance:**
Mode:	**Standard Deviation (SD): (z-score)**

Distribution: Define and draw the following. Show where the mean, median, and mode would lie on each.
Normal Distribution:

Outliers:

Negatively Skewed:

Positively Skewed:

Define **Inferential Statistics**:

What is **Meta-Analysis**?

What is **Statistical Significance**? (***p*-value**)