

## AP Psychology – Unit 2 Assignment – Biological Psychology

**Big Question:** Is our brain and our mind the same thing? How does the brain function to create the “human experience?”

### Biological Psychology Objectives:

- Describe the structure and types of neurons and explain how neural impulses are generated.
- Describe how nerve cells communicate and discuss the impact of neurotransmitters and drugs on human behavior.
- Identify the major divisions of the nervous system.
- Identify the methods used to study the brain.
- Describe the overall organization of the brain.
- Describe the functions served by the various structures within the brainstem.
- Describe the structure and functions of the limbic systems and explain the relationship between the hypothalamus and the endocrine system.
- Describe the structure and functions of the cerebral cortex and discuss how damage to different cortical areas can impair language functioning.
- Discuss the capacity of the brain to reorganize following injury or illness.
- Describe research on the split brain and discuss what it reveals regarding normal brain functioning.

### Biological Psychology Overview

Neuroscience is concerned with the functions of the brain, its component neural systems, and their genetic blueprints, which provide the basis for all human behavior. Under the direction of the brain, the nervous and endocrine systems coordinate a variety of voluntary and involuntary behaviors and serve as the body’s mechanisms for communication with the external environment.

The brain consists of the brainstem, the limbic system, and the cerebral cortex. Knowledge of the workings of the brain has increased with recent advances in neuroscientific methods. Studies of split-brain patients have also given researchers a great deal of information about the specialized functions of the brain’s right and left hemispheres.

The chapter concludes with a discussion of how psychologists use evolutionary principles to answer universal questions about human behavior and specific questions about individual differences.

Many students find the technical material in this chapter difficult to master. Not only are there many terms for you to remember, but you must also know the organization and function of the various divisions of the nervous system. Learning this material will require a great deal of rehearsal. Working the chapter review several times, drawing and labeling brain diagrams, and mentally reciting terms are all useful techniques for rehearsing this type of material.

### Unit 2 Reading Assignment(s)

You are responsible for the reading listed below; it is meant to supplement the material discussed in class I cannot teach you everything. You should skim the chapter after we finish going over the different parts, and take notes on anything we did not cover.

- **OpenStax Psychology Textbook:** Chapter 3 – Biopsychology (Posted on Class Website)

## Unit 2 Vocabulary Terms & Flip Book

Psychology is a term heavy course; you are responsible for the terms below. You will have vocabulary on the unit exam.

**Unit 2 Flip Book:** Each term should be on its own card. Each card will have the term thoroughly and clearly defined on the back. Each card will be taped into a manila folder, numbered, and turned in the day of the unit test.

1. Biological Psychology
2. Neuron
3. Sensory Neurons
4. Motor Neurons
5. Interneurons
6. Dendrite
7. Axon
8. Myelin Sheath
9. Action Potential
10. Threshold
11. Synapse
12. Glial Cells
13. Neurotransmitters
14. Endorphins
15. Agonist
16. Antagonist
17. Nervous System
18. Central Nervous System (CNS)
19. Peripheral Nervous System (PNS)
20. Somatic Nervous System
21. Autonomic Nervous System
22. Sympathetic Nervous System
23. Parasympathetic Nervous System
24. Reflex
25. Endocrine System
26. Hormones
27. Adrenal Glands
28. Pituitary Gland

29. Lesion
30. Brainstem
31. Medulla
32. Reticular Formation
33. Thalamus
34. Cerebellum
35. Limbic System
36. Amygdala
37. Hypothalamus
38. Cerebral Cortex
39. Frontal Lobes
40. Parietal Lobes
41. Occipital Lobes
42. Temporal Lobes
43. Motor Cortex
44. Sensory Cortex
45. Association Areas
46. Aphasia
47. Broca's Area
48. Wernicke's Area
49. Plasticity
50. Corpus Callosum
51. Split Brain
52. Consciousness
53. Hippocampus
54. Cerebrum

**Follow this format for your One-Pager and this format *ONLY!***

- Use Unlined White Paper.
- Use COLORED Pens, Pencils, or Markers.
  - The **MORE VISUALLY APPEALING** it is the more you will **LEARN** and **REMEMBER**.
    - It will be stored by and in different parts of your brain by using different colors, physically writing on it, physically drawing picture, etc.
- Fill the ENTIRE PAGE. Fill the ENTIRE PAGE. Fill the ENTIRE PAGE. Fill the ENTIRE PAGE. Fill the ENTIRE PAGE. Fill the ENTIRE PAGE.
- Be purposeful about the arrangement of your One-Pager.
  - For example, have a reason for using a certain color or for placing an object in a certain place.
- Write **Two Quotations** from the reading, activities, notes, or Mr. Sichak's lectures about this unit or part of the unit.
  - They **MUST** be in COMPLETE SENTENCES.
- Use THREE Visual Images HAND DRAWN to create a central focus to your One-Pager. These should be in **BIG, BOLD, and COLORFUL!!!**
  - Three is the minimum required, you can always have more.
    - They should be related to the unit or part of unit, the more personal, funny, gross, etc. the better you will remember it.
- Place what you feel are the FIVE Most Essential Vocabulary Words/Phrases/People around EACH image. Five is the minimum required, you can always have more.
  - These words/phrases/people should express the main ideas, your impressions, feelings, or thoughts about what you have seen, read, or learned in the unit or part of the unit.
- **Title** the One-Pager as the **Main Idea** of the One-Pager making it the **Biggest and Boldest Words** on the page.
  - It does not have to be one word, or the word that we use to describe it in class, it can be something unique that helps you remember this unit or part of the unit the best.
- Write **TWO AP Questions** on the FRONT of your One-Pager (this is like an AP Question FREE RESPONSE Question & need to be ones that will be answered in **MULTIPLE SENTENCES**) & answer **BOTH** of the on the BACK of the One-Pager using **Complete Thoughts & Sentences**.
- Write your name on the **BACK!!!** Write your name on the BACK!!! Write your name on the BACK!!! Write your name on the **BACK!!!** Write your name on the **BACK!!!** Write your name on the **BACK!!!**