Unit 3 Assignment – Sensation and Perception

Big Question: How do we construct our representation of the external world?

Sensation and Perception Objectives:

- Contrast the processes of sensation and perception.
- Distinguish between absolute and difference thresholds and discuss research findings on subliminal stimulation.
- Describe the phenomenon of sensory adaptation and show how it focuses our attention on changing stimulation.
- Explain the visual process, including the stimulus input, the structure of the eye, and the transduction of light energy
- Discuss the value of parallel processing, especially regarding vision.
- Explain the trichromatic and opponent process theories of color vision.
- Explain the auditory process, including the stimulus input and the structure and function of the ear.
- Discuss the nature and causes of hearing loss and describe the effects of noise on hearing and behavior.
- Describe the sense of touch and explain the basis of pain.
- Describe the senses of taste, smell, kinesthesis, and equilibrium.
- Discuss the effects of sensory restriction.
- Describe the debate over the role of nature and nurture in perception and explain how illusions help us to understand perception.
- Discuss Gestalt psychology's contribution to our understanding of perception
- Discuss research on depth perception involving the use of the visual cliff.
- Describe the binocular and monocular cues in depth perception.
- Discuss the concept of the adaptability of perception.
- State the claims of ESP and explain why most research psychologists remain skeptical.
- Discuss the effect of assumptions, expectations, schemas, and contexts on our perception.

Sensation and Perception Overview:

Sensation refers to the process by which we detect physical energy from the environment and encode it as neural signals. This chapter describes the senses of vision, hearing, taste, touch, smell, kinesthesis, and the vestibular sense. It also presents research findings from studies of sensory restriction and subliminal stimulation.

In this chapter there are many terms and several theories you must understand. Many of the terms are related to the structure of the eye, ear, and other sensory receptors. Labeling diagrams and rehearsing the material frequently will help you memorize these structures and their functions. The theories discussed include signal detection, Young-Helmholtz three-color and opponent-process theories of color vision, and the frequency and place theories of pitch. As you study these theories, concentrate on understanding the strengths and weaknesses (if any) of each.

The Perception unit explores how we select, organize, and interpret our sensations into meaningful perceptions. The chapter introduces a wide range of terminology, especially in the Perceptual Organization section. Each of the two sections that follow deals with an important issue. The first issue is the role of experience, as opposed to heredity, in perception. Make sure you understand the results of studies of recovery from blindness, early sensory restriction, adoption to distorted environments, and perceptual set. The second is the possible existence of ESP, perception without sensation. You should be able to discuss both the claims made for ESP and the criticisms of these claims.

Unit 3 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 5 – Sensation and Perception (Posted on Class Website)

Unit 3 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 3 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.

Sensation

1. Sensation
2. Selective Attention
3. Change Blindness
4. Psychophysics
5. Absolute Threshold
6. Signal Detection Theory
7. Subliminal
8. Priming
9. Difference Threshold
10. Weber's Law
11. Sensory Adaptation

12. Transduction
13. Wavelength
14. Intensity
15. Pupil
16. Iris
17. Lens
18. Retina
19. Rods
20. Cones
21. Optic Nerve
22. Blind Spot
23. Fovea
24. Parallel Processing
25. Young-Helmholtz/Trichromatic Theory
26. Opponent-Process Theory
27. Audition
28. Frequency
29. Pitch
30. Middle Ear
31. Cochlea
32. Inner Ear
33. Place Theory
34. Frequency Theory
35. Conduction Hearing Loss
36. Sensorineural/Nerve Hearing Loss
37. Kinesthesis
38. Vestibular Sense
39. Gate-Control Theory
40. Bottom-Up Processing
41. Sensory Interaction

Perception

42. Perception
43. Top-Down Processing
44. Depth Perception
45. Binocular Cues
46. Retinal Disparity
47. Monocular Cues
48. Perceptual Constancy
49. Color Constancy
50. Perceptual Adaptation
51. Perceptual Set
52. Extrasensory Perception (ESP)
53. Parapsychology

PART II – PSYCHOLOGY ONE-PAGER ASSIGNMENT

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!!!**