**AP Psychology**

**Unit 4: Sensation and Perception**

UNIT OBJECTIVES

1. Contrast sensation and perception, and explain the difference between bottom-up and top-down processing.

2. Distinguish between absolute and difference thresholds, and discuss whether we can sense stimuli below our absolute thresholds and be influenced by them.

3. Describe sensory adaptation, and explain how we benefit from being unaware of unchanging stimuli.

4. Define transduction, and specify the form of energy our visual system converts into the neural messages our brain cells can interpret.

5. Contrast rods and cones, and describe the retina’s reaction to light.

6. Discuss the different levels of processing that occur as information travels from the retina to the brain’s cortex.

7. Define parallel processing, and discuss its role in visual information processing.

8. Explain how the Young-Helmholtz and opponent-process theories help us understand color vision, and explain the importance of color constancy.

9. Describe the three regions of the ear, and outline the series of events that triggers the electrical impulses sent to the brain.

10. Contrast place and frequency theories, and explain how they help us to understand pitch perception.

11. Describe how we pinpoint sounds.

12. Contrast the two types of hearing loss, and describe some of their causes.

13. Describe how cochlear implants function, and explain why Deaf Culture advocates object to these devices.

14. Describe the sense of touch, and describe the biopsychosocial approach to pain.

15. Describe the sense of taste, and explain the principle of sensory interaction.

16. Describe the sense of smell, and explain why specific odors so easily trigger memories.

17. Distinguish between kinesthesis and the vestibular sense.

18. Describe the interplay between attention and perception.

19. Explain how illusions help us to understand some of the ways we organize stimuli into meaningful perceptions.

20. Describe Gestalt psychology’s contribution to our understanding of perception.

21. Explain the figure-ground relationship, and identify principles of perceptual grounding in form perception.

22. Explain how binocular cues help us to perceive depth and compute distance, and how monocular cues are different.

23. State the basic assumption we make in our perceptions of motion, and explain how these perceptions can be deceiving.

24. Describe the shape and size constancies, and explain how our expectations about perceived size and distance contribute to some visual illusions.

25. Discuss lightness constancy and its similarity to color constancy.

26. Describe the contribution of restored-vision and sensory deprivation research in our understanding of the nature-nurture interplay in our perceptions.

27. Define perceptual set, and explain how it influences what we do or do not perceive, and explain why the same stimulus can evoke different perceptions in different contexts.

28. Identify the three most testable forms of ESP, and explain why most research psychologists remain skeptical of ESP claims.

**Post-Test Homework: Myers, pp. 230-238**

**Day One:** Monday, Oct. 28/ Tuesday, Oct. 29

Discussion: Sensation vs. Perception

Top-Down Processing

Activity: Fun with illusions

Video:“Sensation and Perception”

**Homework**: **Myers, pp. 239-246**

**Day Two:** Wednesday, Oct. 30 / Thursday, Oct. 31

Discussion: The Absolute Threshold

Subliminal Persuasion

Weber’s Law (just noticeable difference)

Activity: Backmasking and Reverse Speech

Video Clips: Brain Games

**Homework: Myers, pp. 256-260**

**“The Senses” (article and required questions on website)**

**Day Three:** Monday, Nov. 4 / Tuesday, Nov. 5

Discussion: Belvin’s Whirlwind Auditory Tour

Activity: Eye Movements and Locating the Blind Spot

Video Clips: Brain Games

**Homework: Myers, pp. 260-271 (don’t skip p. 265)**

**Day Four:** Wednesday, Nov. 6 / Thursday, Nov. 7

Discussion: Synesthesia

Pain

Taste Preferences

Odors

Activities: Body Position and Movement (kinesthesis)

Nystagmus (vestibular system)

Human Earphones

Video Clips: Brain Games

**Homework: Myers, pp. 247-255, 272-274**

**Day Five:** Friday, Nov. 8 / Tuesday, Nov. 12

Discussion: ESP

Perceptual Set

Activities: The Amazing Belvin! (he’ll wow you with his telepathic powers)

Perceptual set activities

Assessment: Quiz (open note)

**Homework: Study for Test 4**

**I will likely assign some required review activities**

**Day Six:** Wednesday, Nov. 13 /Thursday, Nov. 14

Discussion: Social Transmission of a Narrative

Activities: Binocular vision

Perceptual Set and Gender Stereotypes

A final look at illusions

Video : Secrets of the Psychics

**Homework: Study for Test 4**

**Day Seven:** Friday, Nov. 15 / Monday, Nov. 18

**TEST 4 (80 Multiple Choice questions, FRQs TBA)**