**Sensation and Perception (6–8%)**

Psychologists study sensation and perception to explain how and why externally gathered sensations and perceptions impact behaviors and mental processes. Using input from several anatomical structures, the sensations we perceive process and interpret information about the environment around us and our place within it. This results in perceptions that influence how we think and behave. In this way, sensation and perception provide a bridge between the biological and cognitive perspectives, offering aspects of both for explaining how we think and behave.

Topics:

3.1 Principles of Sensation

3.2 Principles of Perception

3.3 Visual Anatomy

3.4 Visual Perception

3.5 Auditory Sensation and Perception

3.6 Chemical Senses

3.7 Body Senses

Learning Targets:

* Describe general principles of organizing and integrating sensation to promote stable awareness of the external world.
* Discuss basic principles of sensory transduction, including absolute threshold, difference threshold, signal detection, and sensory adaptation.
* Identify the research contributions of major historical figures in sensation and perception.
* Discuss how experience and culture can influence perceptual processes.
* Discuss the role of attention in behavior.
* Describe the vision process, including the specific nature of energy transduction, relevant anatomical structures, and specialized pathways in the brain for each of the senses.
* Explain common sensory conditions.
* Explain the role of top-down processing in producing vulnerability to illusion.
* Describe the hearing process, including the specific nature of energy transduction, relevant anatomical structures, and specialized pathways in the brain for each of the senses.
* Describe taste and smell processes, including the specific nature of energy transduction, relevant anatomical structures, and specialized pathways in the brain for each of the senses.
* Describe sensory processes, including the specific nature of energy transduction, relevant anatomical structures, and specialized pathways in the brain for each of the body senses.

**Vocabulary for Flashcards**

*Chapter 4, Section 1: Understanding Sensation, pages 116-122*

1. Sensation
2. Perception
3. Bottom-up processing
4. Top-down processing
5. Transduction
6. Coding
7. Psychophysics
8. Difference threshold
9. Absolute threshold
10. Subliminal perception
11. Priming
12. Sensory adaptation
13. Gate-control theory of pain

*Chapter 4, Section 2: How We See and Hear, pages 123-129*

1. Wavelength
2. Wave amplitude
3. Range of wavelengths
4. Retina
5. Fovea
6. Rods
7. Cones
8. Blind spot (eye)
9. Trichromatic theory of color
10. Opponent-process theory of color
11. Audition
12. Outer ear
13. Middle ear
14. Inner ear
15. Cochlea
16. Pitch
17. Place theory for hearing
18. Frequency theory for hearing
19. Volley principle for hearing
20. Conduction hearing loss
21. Sensorineural hearing loss
22. Cochlear implant

*Chapter 4, Section 3: Our Other Important Senses, pages 130-135*

1. Olfaction
2. Pheromones
3. Gustation
4. Olfactory bulb
5. Papillae
6. Vestibular sense
7. Semicircular canals
8. Vestibular sacs
9. Kinesthesis

*Chapter 4, Section 4: Understanding Perception, pages 135-146*

1. Illusion
2. Selective attention
3. Feature detectors
4. Habituation
5. Gestalt psychology
6. Gestalt- figure-ground
7. Gestalt- proximity
8. Gestalt- continuity
9. Gestalt- closure
10. Gestalt- similarity
11. Depth perception
12. Visual cliff
13. Binocular cues
14. Retinal disparity
15. Convergence
16. Monocular cues
17. Accommodation (eye)
18. Perceptual constancy
19. Perceptual set
20. Extrasensory perception (ESP)

*Test Dates:*

*1st period: December 1st*

*4th period: November 30th*