

# AP PSYCHOLOGY

## Unit 1 – Biological Bases of Behavior

### 1.1 HEREDITY AND THE ENVIRONMENT

Nature vs Nurture / Twin studies

### 1.2 NERVOUS SYSTEM

Central Nervous System

Peripheral Nervous System

Somatic Nervous System

Autonomic Nervous System

Sympathetic

Parasympathetic

### NEURON

Neurons

Glial Cells

Sensory Neurons, Motor Neurons, Interneurons

Reflex Arc

Action Potential

All-or-nothing Principle

Depolarization

Refractory Period

Resting Potential

Reuptake

Threshold

## **NEUROTRANSMITTERS**

Excitatory vs Inhibitory

Dopamine

Serotonin

Norepinephrine

Glutamate

GABA

Endorphins

Substance p

Acetylcholine

Antagonist

Agonist

Reuptake Inhibitor

Drugs and Classes

Stimulant

Depressant

Hallucinogen

Opioid

Tolerance

Addiction

Withdrawal

### **1.3 THE BRAIN**

Brain Stem

Medulla

Reticular Formation

Cerebellum

Limbic System

Thalamus

Hypothalamus

Lateral vs Ventromedial Hypothalamus

Pituitary Gland

Hippocampus

Amygdala

Cerebrum

Corpus Callosum

Split Brain Experiment / Research

Brain Lobes

Frontal Lobe

Parietal Lobe

Temporal Lobe

Occipital Lobe

Wernicke's Area

Broca's Area

Aphasia (Broca's Aphasia / Wernicke's Aphasia)

## Brain Plasticity

Phineus Gage

## Brain Scans

EEG

fMRI

CT

PET

## Lesion

### **1.4 SLEEP**

## Consciousness

Sleep / Wake Cycle --- Circadian Rhythm

## Stages of Sleep (EEG)

Stage 1

Stage 2

Stage 3/4

REM

NREM

Hypnogogic Hallucinations

Hypnopompic Hallucinations

Theories of Dreams (why do we dream?)

Activation-Synthesis

Consolidation Theory

Sleep Disorders

Insomnia

Narcolepsy

REM Sleep Behavior Disorder

Sleep Apnea

Somnambulism

## **1.5 SENSATION**

Sensation vs Perception

Absolute Threshold

Weber's Law

Sensory Interaction

Sensory Adaptation

Synesthesia

**Eye**

Retina

Rods

Cones

Fovea

Blind Spot

Optic Nerve (“Visual Nerve”)

Lens

Accommodation

Nearsightedness / Farsightedness

Theories of Color Vision

Opponent Process Theory of Color Vision

Afterimages

Trichromatic Theory of Color Vision

Prosopagnosia / Blindsight

**EAR**

Wavelength

Amplitude

Theories of Pitch Perception

Place Theory

Volley Theory

Frequency Theory

Conduction Deafness

Sensorineural Deafness

Cochlear Implant

Vestibular Sense

Semicircular Canals

Kinesthesia

## **NOSE/TASTE**

“Olfaction” / “Olfactory” – Smell

“Gustation” – Taste

Sweet, Sour, Salty, Bitter, Umami, Oleogustus

Gate Control Theory of Pain

Phantom Limb

