

# AP PSYCHOLOGY MAJOR AREAS OF REVIEW

MRS. CARLTON

*This is just a list of the major topics that I suggest you study, NOT a complete list of them. There is much more that you should be studying, but this is a starting point.*

## **Unit 1 – Psychology’s History & Approaches (2 – 4%)**

- Nature vs. Nurture
- Approaches/Perspectives – 7 main viewpoints
- Ideal Study Methods – SQ3R
- Important People
  - Wilhelm Wundt
  - John Locke

## **Unit 2 – Research Methods (8 – 10%)**

- Scientific attitude & Scientific method
- Descriptive research – Survey, case study, naturalistic observation
- Population and random sampling
- Correlation (remember it does NOT prove causation)
- Single blind vs. double blind experiments
- Variables – independent / dependent
- Measures of central tendency – Mean/median/mode & Measures of variation – Range/standard deviation
- Ethics in experimentation

## **Unit 3 – Biological Bases of Behavior (8 – 10%)**

### **Neural Processing & the Endocrine System**

- Neuron – know the diagram of the structure – how to label it and the function of each part
- Neurotransmitters – know each one’s function and what would happen if there were too much or too little
- Neurotransmitter activity – reuptake, agonists/antagonists
- Nervous system – structures and functions - Central & peripheral (autonomic and somatic)
- Endocrine system – glands and functions of each gland (as well as hormones they secrete)

### **The Brain**

- Tools of Discovery (EEG, PET Scan, MRI, fMRI, CT Scan) – what they are, what they’re used for, what they show
- Brain – structures – functions of each main brain structure
  - Know which are older brain structures, limbic system, etc
  - Cerebral cortex and lobe & hemispheric specializations
  - Motor and Somatosensory Cortexes
  - Language Areas
  - Split Brain

## Genetics, Evolutionary Psychology and Behavior

- Twin studies & differences between identical/fraternal twins
- Heritability
- Evolutionary psychologists

## Unit 4 – Sensation & Perception (6 – 8%)

- Bottom-up & top-down processing
- Thresholds – absolute, signal detection, subliminal, difference, Weber’s Law

### Senses:

- Vision – transduction of light energy into neural impulses
  - Know eye structure, be able to label & tell what each part does
  - Rods & cones
  - Electromagnetic spectrum – wavelength & amplitude
  - Color Vision Theories – Young-Helmholtz trichromatic theory & opponent-process theory
- Audition (Hearing) – transduction of sound waves into neural impulses
  - Know ear structure, regions (outer, middle, inner) and function of each structure
  - Pitch perception – place theory and frequency theory
  - Hearing loss – conduction hearing loss and sensorineural hearing loss
- Touch – sends sensory information to the somatosensory cortex of the brain
  - We can feel: pressure, warmth, cold and pain
- Taste – chemical sense that stimulates the taste buds, strong interaction with sense of smell
  - Sweet (sugary, for energy), salty (salt, body needs sodium), sour (citrus, to identify potential toxins), bitter (black coffee/dark chocolate, to identify potential poisons), umami (meat, proteins)
- Olfaction (Smell) – chemical sense – only one to be perceived inside the sensory organ, then info sent to the brain
- Kinesthesia – sense of position & movement of your body parts - located in your joints, tendons, bones & ears
- Vestibular – monitors your head’s (and, thus, your body’s movement); located in the semicircular canals and the vestibular sacs located in the inner ears. Basically like your inner “level”
- Pain – purpose behind and biopsychosocial approach to it

### Perception:

- Gestalt, figure and ground, depth perception (visual cliff)
- Binocular cues – retinal disparity
- Grouping Principles – proximity, similarity, continuity, closure, connectedness
- Monocular Depth cues – horizontal-vertical illusion, interposition, light-and-shadow effect, linear perspective, relative height, relative motion, relative size, phi phenomenon
- Constancy – shape, size, lightness and color
- Extrasensory Perception (ESP) – telepathy, precognition, clairvoyance and psychokinesis

## Unit 5 – States of Consciousness (2 – 4%)

- Sleep Stages (#1 – 5) – physiological changes and approximate amount of time spent in that stage
- REM & NREM – differences
- Sleep disorders – insomnia, narcolepsy, sleep apnea, night terrors, sleepwalking/talking

- Dreams – theories
- Hypnosis – posthypnotic suggestions & dissociation
- Drugs – tolerance, withdrawal, physical/psychological dependence, addiction
  - Classifications and their pleasurable effects, plus adverse side-effects

## **Unit 6 – Learning (7 – 9%)**

- **Classical conditioning** (automatic) – Pavlov, conditioned/unconditioned, stimulus/response, neutral
- **Operant conditioning** (active choice) – Skinner, positive/negative, reinforcement/punishment
- Acquisition, extinction, spontaneous recovery, generalization, discrimination
- Schedules of Reinforcement – variable/fixed, ratio/interval
- Motivation – intrinsic/extrinsic
- **Observational Learning** – Bandura, modeling, mirror neurons

## **Unit 7 – Cognition**

### **Memory**

- Atkinson-Shiffrin 3-Stage Model of Memory – sensory memory, short-term, long-term
- Sensory Memory (Sperling) – iconic/echoic, selective attention, automatic/parallel/effortful processing
- Short-term memory – (George Miller) approx.. 7 items (5-9) and lasts less than 30 secs on avg
- Long-term memory – limitless in capacity and duration
- Memory organization – hierarchies, concepts, prototypes, semantic encoding, schemas, script, connectionism theory
- Retrieving Memories – recognition, recall, reconstruction, serial position effect, retrieval cues, priming, mnemonic devices, peg words

### **Thinking, Problem Solving, Creativity & Language**

- Metacognition – Benjamin Whorf, linguistic relativity hypothesis
- Algorithms, heuristics, insight, trial and error, deductive reasoning
- Problem Solving Obstacles – fixation, mental set, functional fixedness, availability heuristic, representative heuristic, framing
- Biases – confirmation bias, belief perseverance, belief bias, hindsight bias, overconfidence bias
- Creativity – convergent vs. divergent thinkers, brainstorm
- **Language:**
- Phonemes (sounds) vs. Morphemes (meaning)
- Grammar, syntax, semantics
- Theories of Language Acquisition – naturists, nurturists, modern idea: combo of nature & nurture
- Critical time period for acquiring language
- Acquisition stages: babbling stages, holophrase, telegraphic speech, overgeneralization

## **Unit 8 – Motivation & Emotion (6 – 8%)**

### **Motivation**

- Drive reduction theory, instincts, homeostasis, incentives
- Hierarchy of Motives – pyramid

- Hunger – know appetite hormones, where they come from and the messages they send
  - Eating Disorders – anorexia & bulimia nervosa, binge-eating disorder, obesity & set-point
- Sexual Motivation – sexual response cycle, hormones, psychological response to external & imagined stimuli, sexual orientation
- Belong – aided in our survival, makes us sustain relationships, becomes painful if ostracized

## **Emotion, Stress & Health**

- **Emotion Theories:**
  - James-Lange (physiological, then emotion), Cannon-Bard (simultaneous, think “cannon ball”) & Schachter-Singer (Two-Factor) (cognitively label what you’re feeling with an emotion)
- Autonomic NS – fight or flight – know what is happening physiologically within the body
- Experienced Emotion – 10 Basics: joy, interest-excitement, surprise, sadness, anger, disgust, contempt, fear, shame & guilt
- **Stress:**
  - General Adaptation Syndrome (Selye) – Alarm Reaction, Resistance, Exhaustion (GAS ARE)
  - Coronary Heart Disease – worse among people prone to stress
  - Type A or Type B reactions to stress
  - Lymphocytes – B – made in bone marrow, fight bacterial infections. T – made in thymus, fight cancer/viruses/foreign substances
  - Stress lowers immune response and opens you up to illness and disease

## **Unit 9 – Developmental Psychology (7 -9%)**

- Main Topics: Nature vs. Nurture, Continuity vs. Stages, Stability vs. Change
- Conception, zygote, embryo, fetus
- Schemas – assimilate (same schema), accommodate (change schema)
- Piaget’s Stages of Cognitive Development:
  - Sensorimotor, Preoperational, Concrete Operational, Formal Operational
- Social Development: stranger anxiety, autism, Harry Harlow’s body contact study, Mary Ainsworth’s secure vs. insecure attachment
  - Parenting styles: authoritarian, authoritative, permissive, neglectful
- Gender – role (expected behaviors), identity (how you feel about yourself), typed (stereotype)
- Adolescence – puberty, menarche/spermarche, sexual characteristics (primary/secondary), identity, social identity, intimacy
- Erikson’s Stages of Psychosocial Development:
  - Trust, Autonomy, Initiative, Industry, Identity, Intimacy, Generativity, Ego-Integrity
- Kohlberg’s Stages of Moral Development: Preconventional, Conventional, Postconventional
- Adulthood:
  - Physical changes: menopause, sensory ability declines
  - Cognitive changes: crystallized/fluid intelligence, dementia, Alzheimer’s disease
- Cross-sectional and longitudinal studies

## **Unit 10 – Personality (5 – 7%)**

- Assessing personality: idiographic and nomothetic methods
- Biological/Evolutionary – heritability, David Buss, Evolutionary

- Sigmund Freud – psychodynamic/psychoanalytic theories
  - Personality aspects: id (selfish little kid), ego (mediator), superego (conscience)
  - Layers of Consciousness – conscious (aware), preconscious (beneath surface), unconscious (deep underneath, totally unaware)
  - Psychosexual Stages: Oral, Anal, Phallic, Latency, Genital
- **NeoFreudians:**
- Carl Jung: personal/collective unconscious inherited from ancestors, archetypes, individuation
- Alfred Adler: social interest, birth order, superiority/inferiority
- Karen Horney: brought feminist perspective to psychoanalytic theory, attacked male bias in Freud's work, countered penis envy with womb envy
- Big Five Personality Factors:
  - CANOE/OCEAN: Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism
- Behavioral Approach – Skinner – environment shapes who we become, Skinner box
- Humanistic Approach – Maslow/Rogers – self-actualization, unconditional positive regard; Rogers suggested calling them clients, not patients.
- Social Cognitive Theory – Bandura – reciprocal determinism – personality, environment, behavior
- Locus of Control – internal (you're in control) or external (fate/destiny/other people are in control)
- Trait Perspective – Eysencks – Introversion/extroversion, stable/unstable, neuroticism, psychoticism
- Defense Mechanisms: 4Rs, 2Ds, 1S & 1P: repression, regression, reaction formation, rationalization, displacement, denial, sublimation and projection.
- Assessment techniques: direct observation, projective tests (Rorschach inkblot test or TAT), self-reported tests
- Halo effect & Hawthorn Effect

## **Unit 11 – Testing & Individual Differences (5 – 7%)**

- Gardner's Multiple Intelligences: Interpersonal, Intrapersonal, Linguistic, Logical-Mathematical, Naturalist, Spatial, Bodily-Kinesthetic, Musical
- Twin Studies allow us to compare: show us similarities between identical/fraternal/adopted siblings
- Flynn Effect – each generation being better fed & educated has gotten smarter
- Emotional Intelligence (Salovey & Mayer) – perceive, express, understand & regulate emotions
- Triarchic theory of intelligence (Sternberg):
  - Analytical (school smarts), Creative (novel ideas), Practical (street smarts/common sense)
- Down Syndrome, Fetal Alcohol Syndrome (FAS) and Phenylketonuria (PKU)

## **Unit 12 – Abnormal Psychology (7 – 9%)**

- Disordered Behavior: deviant, distressful, harmful, dysfunctional
  - will vary with time/context/culture
- Medical Model – treats as a medical problem using common medical interventions (medication & physical treatments)
- **DSM-V** (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, released in 2013)
  - classifies disorders, offers uniformity in diagnoses
- Anxiety Disorders: marked by distressing, persistent anxiety
  - Generalized Anxiety Disorder – unexplainably & continually tense & uneasy
  - Panic disorder – sudden episodes or intense dread; panic attacks
  - Phobias (Phobic Disorder) – irrationally & intensely afraid of a specific object or situation

- Obsessive-Compulsive (OCD) – has been reclassified in the DSM-V
  - troubled by repetitive (obsessive) thoughts and feel compelled to do repetitive actions to cope with thoughts
- Posttraumatic Stress Disorder (PTSD) – has been reclassified as a Trauma-Related Disorder
  - troubled by anxiety, flashbacks, social isolation, avoidant behavior, etc. ; caused by witnessing or being the victim of a trauma or repeatedly exposed to traumas (like 1<sup>st</sup> responders); most common among veterans & victims of sexual assault
- Somatoform Disorders - symptoms take a bodily form without apparent physical cause
  - Conversion Disorder – rare disorder where a person experiences very specific genuine physical symptoms for which no physiological basis can be found
  - Somatic Symptom Disorder (formerly called Hypochondriasis) – person interprets normal physical sensations as symptoms of a disease/disorder/syndrome (High health anxiety)
- Dissociative Disorders - conscious awareness becomes separated from previous memories, thoughts and feelings
  - Dissociative Identity Disorder- rare disorder in which a person exhibits two or more distinct and alternating personalities (formerly multiple personality disorder)
  - Dissociative Amnesia – forget periods of time where they experienced trauma or extreme upset; sometimes with a Fugue state (formerly called Dissociative Fugue) - flee and end up in another city/town/state with no recollection of their past and sometimes who they are
- Mood Disorders – characterized by emotional extremes
  - **Major Depressive Disorder** – 2 or more wks of significantly depressed moods, feelings of worthlessness, and diminished interest or pleasure in most activities
  - **Bipolar Disorder** – *alternates* between the **hopelessness and lethargy of depression** and the **overexcited state of mania** (extreme highs and lows in brain activity) – typically several weeks in one stage, then the other
- **Schizophrenia:** severe disorder characterized by disorganized & delusional thinking, disturbed perceptions & inappropriate emotions & actions. Diagnosis changed majorly in the DSM-5 (*see packet*).
  - Paranoia - can experience delusions of grandeur or persecution or auditory or visual hallucinations
  - Disorganized speech (word salad) or behavior, flat affect or inappropriate behavior
  - Catatonic immobility (or excessive or purposeless movement), extreme negativism, and/or parrot-like repeating of another's speech or movement
- Personality Disorders – inflexible & enduring behavior patterns that impair social functioning
  - **Anxiety cluster (Cluster A)** - Paranoid, Schizoid & Schizotypal Personality Disorder
  - **Dramatic/impulsive cluster (Cluster B)** - Borderline, Histrionic, & Narcissistic Personality Disorder
    - Antisocial personality disorder – usually male, exhibits a lack of conscience for wrongdoing, even toward friend and family members may be aggressive and ruthless or a clever con artist
  - **Eccentric cluster (Cluster C)** - Avoidant, Dependent & Obsessive-Compulsive Personality Disorder

## Unit 13 – Treatment of Psychological Disorders (5 – 7%)

### Psychological Therapies

- Psychotherapy - treatment involving psychological techniques; interaction b/n trained therapist & someone seeking to overcome psychological difficulties or achieve personal growth
  - **Psychoanalysis** - Freud, assess the unconscious; free associations, resistances, dreams, and transferences and the *therapist* interpretations of them... which would release previously repressed feelings allowing the patient to gain self-insight
  - Psychodynamic - surviving techniques and assumptions
  - **Humanistic Therapies** - emphasized people's inherent potential for self-fulfillment

- Insight therapies, client-centered therapy, active listening; unconditional positive regard (Rogers)
- Behavior Therapies - Apply learning principles to the elimination of unwanted behaviors
  - Classical conditioning techniques – Counterconditioning, Exposure therapy (systematic desensitization, virtual reality exposure therapy), Aversive conditioning
  - Operant Conditioning
  - Cognitive Therapies: Teaches people new, more adaptive ways of thinking & acting; based on the assumption that thoughts intervene between events and our emotional reactions
    - Beck's Theory for Depression
  - Cognitive-Behavioral Therapy – popular integrative therapy combination
  - Group and family therapy

#### Biomedical Therapies:

- **Drug Therapies:**
  - **Psychopharmacology** - study of drug effects on mind and behavior
  - **Antipsychotic Drugs** - Chlorpromazine (Thorazine)
  - Long-term use of antipsychotics can cause **tardive dyskinesia** - involuntary movements of the facial muscles, tongue, limbs
  - **Antianxiety Drugs** – (Ex: Xanax or Ativan) - Depress central nervous system activity (don't use with alcohol), often used in combo with psychotherapy
  - **Antidepressant Drugs** - Increase availability of norepinephrine or serotonin, neurotransmitters that elevate arousal and mood (Prozac, Zoloft, Paxil, Celexa)
  - **SSRIs** (selective-serotonin-reuptake-inhibitors); partially blocks the reabsorption and removal of serotonin from synapses (Cymbalta, Effexor XR, Pristiq)
  - **SNRIs** (serotonin-norepinephrine reuptake inhibitors); affect levels of both neurotransmitters
  - **Mood-Stabilizing Medications** - Lithium & Depakote - used to stabilize the highs and lows of bipolar disorder
- **Brain Stimulation**
  - **Electroconvulsive Therapy (ECT):** Controversial brain manipulation to treat chronic/severe depression, shock treatment
  - **Alternative Neurostimulation Therapies:** Magnetic Stimulation, rTMS (Repetitive transcranial magnetic stimulation), Deep-Brain Stimulation
- **Psychosurgery:** Surgery that removes or destroys brain tissue—most drastic and least-used biomedical intervention
  - **Lobotomy** - (a now-rare) psychosurgical procedure once used to calm uncontrollably emotional or violent patients; the procedure cut the nerve connecting the frontal lobes to the emotion-controlling centers of the inner brain
- **Therapeutic Life-Style Change**
  - Diet, vitamins, proper nutrition, exercise, sunlight, sleep, support system

## Unit 14 – Social Psychology (8 – 10%)

### Social Thinking

- Attribution theory - fundamental attribution error
- Attitudes – central route persuasion – direct, peripheral route persuasion – more superficial
- Cognitive dissonance theory – fit attitudes to actions when you're uncomfortable with your actions
- Foot-in-the-door phenomenon – agree to something small, usually you agree to do something bigger later on

## Social Influence

- **Conformity:** go along with others (Asch's line experiment)
- **Obedience:** obey others (typically those perceived to be authority figures); Milgram's experiment
- **Normative social influence:** go along to feel "normal"
- **Informational social influence:** believe everyone else knows more than you do

## Group influence

- social facilitation – easy or well-known performed better in front of others
- social loafing – everyone feels less responsibility to do work in a group
- deindividuation – feel anonymous in group
- group polarization – prevailing belief gets stronger once discussed
- groupthink – go along with group for harmony, not realistic

## Cultural influence

- **Norms** – rules for accepted and expected behavior
- **Personal space** – changes in each culture

## Social Relations

- **Prejudice** – pre-judge others before you know them
- **Stereotypes** – generalization about a group
- **Discrimination** – unjustifiable negative behavior toward a group
- **In-group** – “us” - biased toward our own group
- **Out-group** – “them”
- **Scapegoat theory** – prejudice gives us an outlet for anger by providing someone to blame
- **Other-race effect** – own-race bias
- **Just-world phenomenon** – “people deserve what they get and get what they deserve”
- Aggression - frustration-aggression principle
- Attraction - mere exposure effect – more you see it the more you like it
- Altruism
  - bystander effect – less likely to get help with more people around
  - social exchange theory – maximize benefits, minimize personal cost
  - reciprocity norm – reciprocate
  - social-responsibility norm – help those who depend on us
- Social trap – only do what's best for ourselves
- Mirror-image perception – fail to see our own actions as aggressive
- Superordinate goals – superior above other small ones
- GRIT – tension reduction techniques

For full slideshow, visit <https://sites.google.com/site/apppsychologymrscarlton/my-forms>