Unit 1 - Careers in Psychology

Francis Bacon = one of founders of modern science; ideas later added by Locke to form modern *empiricism* (knowledge is from experience, science rely on observation and experimentation)

John Locke (cognitive) = mind is a blank state (Aristotle's *tabula rasa*); *empiricism* (knowledge acquired by careful observation)

Edward Titchner = *structuralism* (study human mind via introspections); *introspection* (looking inward)

Margaret Washburn = first woman to receive psych Ph.D.; synthesized animal behavior research in "The Animal Mind"; couldn't join *experimental psychologists* (study of behavior and thinking using experiment)

Sigmund Freud = *Freudian psychology* (emphasized ways our unconscious thought processes and our emotional responses to childhood experiences affect our behavior); psychodynamic approach

Unit 4 - Parts of Eye and Ear

Parts of Eye:	Parts of Ear:
pupil = adjustable opening in center of eye through which light enters	outer ear = eardrum (a tight membrane that vibrates)
iris = ring of muscle tissue that forms colored part of eye around pupil and controls size of pupil opening	middle ear = chamber btwn eardrum and cochlea containing3 tiny bones (*hammer, anvil, stirrup*) that concentrate vibrations of eardrum on cochlea's oval window

Unit 4 - Parts of Eye and Ear (cont)

lens = transparent structure behind pupil that changes shape to help focus images on retina	cochlea = coiled, bony, fluid-filled tube in inner ear; sound waves traveling through cochlear fluid trigger nerve impulses
retina = light-sensitive inner surface of eye, containing receptor rods & cones plus layers of neurons that begin the processing of visual info	inner ear = contains cochlea, semicircular canals, and vestibular sacs
accommodation = eye's lens changes shape to focus near/far objects on the retina	pitch = a tone's experienced highness/lowness; depends on frequency
the retina:	frequency = number of complete wavele-ngths that pass a point in a given time
rods = retinal receptors that detect black, white and gray (*shade*)	**place theory** = links the pitch we hear with the place where the cochlea's membrane is stimulated

Unit 4 - Parts of Eye and Ear (cont)

cones = retinal receptor cells that function in daylight, detecting fine detail and *color*	**frequency theory** = the rate of nerve impulses traveling up the auditory nerve matches frequency of a tone, allowing us to sense its pitch

optic nerve = the nerve that carries neural impulses from eye to brain

blind spot = point the optic nerve leaves the eye where no receptor cells are located there

fovea = central focal point in retina around where cones cluster

Unit 5 - States of Consciousness

consciousness = our awareness of ourselves and our environment

circadian rhythm = biological clock; regular bodily rhythms

REM = rapid eye movement; recurring sleep stage which vivid *dreams* occur; muscle relax but other body systems are active (paradoxical sleep)

alpha wave = relatively slow brain waves; relaxed, but awake state

delta wave = large, slow brain waves associated with deep sleep

NREM sleep = (non-rapid eye movement); encompasses all sleep stages except REM; *deep sleep*

Sleep Stages = every 90 mins, 8 full cycles; leaving alpha waves to irregular brain waves of non-REM stage 1-> NREM 1; NREM2 spend most time here (20mins), sleep spindles; NREM3

Unit 7 - Memories

memory	the persistence of learning over time through the encoding, storage, and retrieval of info
encoding	the processing of info to the memory system
mnemonics	memory aids; techniques that use vivid imagery/organizational devices
the spacing effect	the tendency for distributed study/practice to yield better long-term retention than is achieved through massed study/practice
belief perseverance	to continue believing in something even though there was evidence that supports its contradiction
morphemes	in a language, the smallest unit that carries meaning (may be a word or a part of a word)
syntax	the ordering of words when making a sentence

Unit 9 - Developmental Psychology

3 issues of developmental psychologists	nature and nurture, continuity and stages, stability and change

Unit 9 - Developmental Psychology (cont)

Kohlberg	moral reasoning; preconventional (self interest), conventional (uphold laws and social), postconventional (ethics)
Erik Erikson	psychosocial; basic trust, autonomy, initiative, competence, identity, intimacy, generativity, integrity
Piaget	cognitive; sensorimotor (0-2 yrs, object), preoperational (2-7), concrete operational (7-11), formal operational (12-)
prenatal development	zygote (fertilized egg) -> embryo (developing human organism) -> fetus
Harlow	known for his maternal-separation, dependency needs, and social isolation experiments on rhesus monkeys, which manifested the importance of caregiving and companionship to social and cognitive development

Unit 9 - Developmental Psychology (cont)

critical period	an optimal period early in the life of an organism when exposure to certain stimuli/experiences produces normal development
transgender	an umbrella term describing ppl whose gender identity/expression differs from that associated with their birth sex

Unit 2 - Research Methods

hindsight bias	*i-knew-it-all-along* phenomenon
mean	the arithmetic avg of a distribution by adding the scores and then dividing by the number of scores
mode	the most frequently occurring score(s) in a distribution
median	the middle score in a distribution; half the scores are above it and half are below it
range	the difference between the highest and lowest scores in a distribution
standard deviation	computed measure of how much scores vary around the mean score

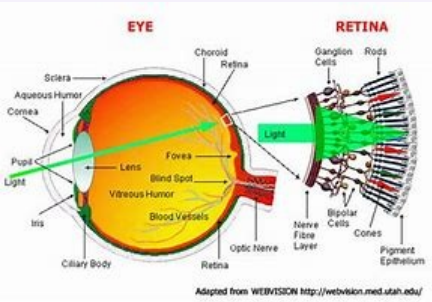
Unit 2 - Research Methods (cont)

phrenology (Franz Gall)	studying bumps on skull could reveal a person's mental abilities and character traits

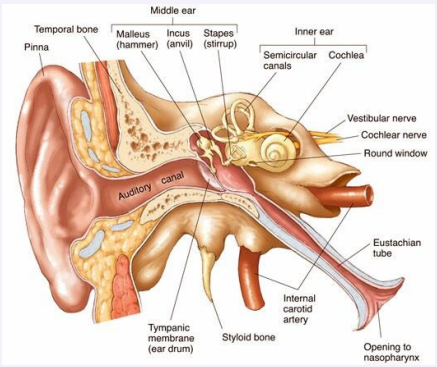
Unit 4 - Sensation & Perception

top-down processing	info processing guided by higher-level mental processes, as when we construct perceptions drawing on our experience & expect-ations
bottom-up processing	analysis that begins with the sensory receptors and work up to the brain's integration of sensory information
sensation	process which our sensory receptors and nervous system receive and represent stimulus energies from our enviro-nment
perception	process of organizing and interpreting sensory info, enabling us to recognize meaningful objects/events

Parts of Eye



Parts of Ear



Unit 5- Sleep Disorders

insomnia	recurring problems in fallin-g/staying asleep
narcolepsy	uncontrollable sleep attacks, lapse directly to REM
sleep apnea	temporary stop breathing during sleep and waking up
night terrors	high arousal & appearance of being terrified; occur during NREM3 within 2-3 hrs of sleep
somnam-bulism	sleepwalking, sleep talking/e-ating/driving

Unit 6 - Learning

learning	process of acquiring new and relatively enduring info or behaviors
classic condit-ioning	associating two stimuli and anticipate events
operant condit-ioning	associating a response with a consequence
reinfo-rcement schedule	a pattern that defines how often a desired response will be reinforced

Unit 6 - Learning (cont)

law of effect	(Thorndike) the idea that responses that led to positive effects are repeated and vice versa
Skinner box	in operant conditioning research containing a bar/key that an animal can manipulate to obtain a food/water reinforcer; attached devices record animal's rate of bar pressing/key pecking
learned helple-ssness	the hopelessness and passive resignation one learns when unable to avoid repeated aversive events
external locus of control	the perception that chance/ou-tside forces beyond our personal control determines our fate

Unit 10 - Personality

person-ality	an individual's characteristic pattern of thinking, feeling, and acting
repression	in psychoanalytic theory, the basic defense mechanism that banishes from consciousness anxiety-arousing thoughts, feelings, and memories

Unit 10 - Personality (cont)

Big Five	Costa & McCrae; CANOE: *C*onscientiousness, *A*greeableness, *N*euroticism (emotional stability vs instability), *O*penness, *E*xtraversion
Maslow's self-actualization	one of ultimate psychological needs that arises after basic physical & psychological needs are met and self-esteem is achieved; the motivation to fulfill one's potential ->self transendence
social-cognitive perspective	Bandura; views behavior as influenced by interaction btwn people's traits (and their thinking) and their social context; Bobo Doll experiment

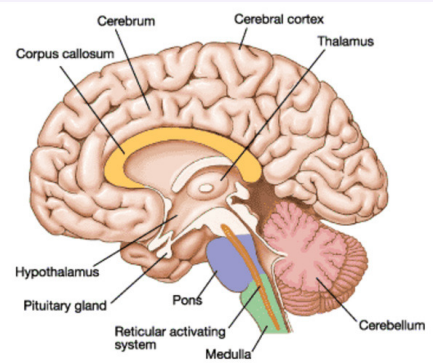
Unit 3 - Biological Psychology

cerebral cortex	fabric of interconnected neural cells covering the cerebral hemispheres; the body's ultimate control and information-processing center; contain the lobes
frontal lobes	involved in speaking and muscle movements and in making plans and judgments
parietal lobes	receives sensory input for touch and body position

Unit 3 - Biological Psychology (cont)

occipital lobes	receive information from visual fields
temporal lobes	auditory areas, each receiving info primarily from opposite ear
right brain hemisphere	*perceptual* task; groups in categories like pen pencil book is school, make speech mean clear, help orchestrate our sense of self
left brain hemisphere	when the person speaks or calculates; make quick, literal interpretations of language
hippocampus	processes conscious *memories*
cerebellum	processes sensory input, coordinating mvmnt and balance, & enabling nonverbal learning/memory
hypothalamus	desires (urges, impulses), food, thirst, sex

Brain Structure Image



*Unit 4 - Theories and Others

Eye Vision:

Young-Helmholtz Trichomatic (three-color) Theory = retina contains three diff color receptors: red, green, blue; which, when stimulated can produce perception of any color

opponent-process theory = opposing retinal processes (r-g, y-b, w-b) enable color vision. I.e. some cells stimulated by green, inhibited by red

gestalt = an organized whole; emphasized our tendency to integrate pieces of info to meaningful wholes

parallel processing = doing many things at once

Other Senses:

gate-control theory = accepting or denying pain to the brain

McGurk Effect = sensory integration = senses not lined up & seems off (ex. some hear may, some hear bay)

Unit 5 - Addiction

depressants	alcohol, barbiturates (tranquilizers), opiates; calm neural activity and slow body functions
stimulants	caffeine, nic, amohetamines, cocaine, ectasy, methamphetamine; excite neural activity and speed up body functions
hallucinogens	psychedelic (mind-manifesting) drugs like LSD; distort perceptions and evoke sensory images in absence of sensory input

Unit 8 - Motivation, Emotion, Stress

motivation	a need or desire that energizes and directs behavior
James--Lange	physical 1st, emotion 2nd; we observe our heart racing after a threat and *then* feel afraid
two-factor	Schachter-Singer theory that to experience emotion, one must be physically aroused and cognitively label the arousal (heart began pounding as i experience fear)
set-point	the point at which an individual's weight thermostat is set
orexin	hunger-triggering hormone secreted by hypothalamus
ostracism	an extreme form of rejection in which one is excluded and ignored in the presence of others
emotion	a response of the whole organism involving physiological arousal, expressive behaviors, and conscious experience
polygraph	machine commonly used in attempts to detect lies, that measures several physiological responses accompanying emotion
Abraham Maslow	hierarchy of needs; bottom to top: physiological, safety, belonginess/love, esteem, self-actualization, self-transendence

Unit 11 - Intelligence

intelligence	mental quality consisting of the ability to learn from experience, solve problems, and use knowledge to adapt to new situations
Spearman	*general intelligence (g)* factor that underlies specific mental abilities & therefore measured by every task on an intelligence test; *factor analysis* used to identify diff dimensions of performance that underlie a person's total score
Gardner	8 mult intelligences: naturalist, linguistic, logical-mathematical, musical, spatial, bodily-kinesthic, intrapersonal, interpersonal
Sternberg	3 intelligences: analytical, creative, practical
Binet	*mental age*: chronological age that most typically corresponds to a given level of performance