

<p>Sensory Processing</p> <ul style="list-style-type: none"> • Sensation <ul style="list-style-type: none"> ○ Thresholds ○ Weber’s Law (PSY) ○ Signal detection theory (PSY) ○ Sensory adaptation • Sensory receptors <ul style="list-style-type: none"> ○ Sensory pathways ○ Types of sensory receptors 	<p>PSY101, 323 & BIO 403, 403L, 415</p>
<p>Vision</p> <ul style="list-style-type: none"> • Structure and function of the eye • Visual processing <ul style="list-style-type: none"> ○ Visual pathways in the brain ○ Parallel processing (PSY) ○ Feature detection (PSY) 	<p>PSY 101, 323, 422 & BIO 403, 403L, 415</p>
<p>Hearing</p> <ul style="list-style-type: none"> • Auditory processing <ul style="list-style-type: none"> ○ Auditory pathways in the brain • Sensory reception by hair cells (PSY) 	<p>PSY 101, 323, 422 & BIO 403, 403L, 415</p>
<p>Other Senses</p> <ul style="list-style-type: none"> • Somatosensation <ul style="list-style-type: none"> ○ Pain perception (PSY) • Taste <ul style="list-style-type: none"> ○ Taste buds/chemoreceptors that detect specific chemicals • Smell <ul style="list-style-type: none"> ○ Olfactory cells/chemoreceptors that detect specific chemicals ○ Pheromones (BIO) ○ Olfactory pathways in the brain (BIO) • Kinesthetic sense (PSY) • Vestibular sense 	<p>PSY 101, 323, 422 & BIO 403, 403L, 415</p>
<p>Perception</p> <ul style="list-style-type: none"> • Perception <ul style="list-style-type: none"> ○ Bottom-up/Top-down processing ○ Perceptual organization (e.g., depth, form, motion, constancy) ○ Gestalt principles 	<p>PSY 101, 321, 323</p>
<p>Attention</p> <ul style="list-style-type: none"> • Selective attention • Divided attention 	<p>PSY 101, 321, 322, 323</p>
<p>Cognition</p> <ul style="list-style-type: none"> • Information-processing model • Cognitive development <ul style="list-style-type: none"> ○ Piaget’s stages of cognitive development 	<p>PSY 101, 321, 351 & BIO 403, 403L, 415</p>

<ul style="list-style-type: none"> ○ Cognitive changes in late adulthood ○ Role of culture in cognitive development ○ Influence of heredity and environment on cognitive development ● Biological factors that affect cognition (PSY, BIO) ● Problem solving and decision making (PSY, BIO) <ul style="list-style-type: none"> ○ Types of problem solving ○ Barriers to effective problem solving ○ Approaches to problem solving ○ Heuristics, biases, intuition, and emotion <ul style="list-style-type: none"> ▪ Overconfidence and belief perseverance ● Intellectual functioning <ul style="list-style-type: none"> ○ Multiple definitions of intelligence ○ Influence of heredity and environment on intelligence ○ Variations in intellectual ability 	<p>2</p>
<p>Consciousness</p> <ul style="list-style-type: none"> ● States of consciousness <ul style="list-style-type: none"> ○ Alertness (PSY, BIO) ○ Sleep <ul style="list-style-type: none"> ▪ Stages of sleep ▪ Sleep cycles and changes to sleep cycles ▪ Sleep and circadian rhythms (PSY, BIO) ▪ Dreaming ▪ Sleep disorders ○ Hypnosis and meditation ● Consciousness altering drugs <ul style="list-style-type: none"> ○ Types of consciousness altering drugs and their effects on the nervous system and behavior ○ Drug addiction and the reward pathway in the brain 	<p>PSY 101, 321, 422 & BIO 403, 403L, 415</p>
<p>Memory</p> <ul style="list-style-type: none"> ● Encoding <ul style="list-style-type: none"> ○ Process of encoding information ○ Processes that aid in encoding memories ● Storage <ul style="list-style-type: none"> ○ Types of memory storage (e.g., sensory, working, long-term) ○ Semantic networks and spreading activation ● Retrieval <ul style="list-style-type: none"> ○ Recall, recognition, and relearning ○ Retrieval cues ○ The role of emotion in retrieving memories ● Forgetting <ul style="list-style-type: none"> ○ Aging and memory ○ Memory dysfunctions (e.g., Alzheimer’s disease, Korsakoff’s syndrome) ○ Decay 	<p>PSY 101, 321 & BIO 403, 403L, 415</p>

<ul style="list-style-type: none"> ○ Interference ○ Memory construction and source monitoring ● Changes in synaptic connections underlie memory and learning (PSY, BIO) <ul style="list-style-type: none"> ○ Neural plasticity ○ Memory and learning ○ Long-term potentiation 		3
<p>Language</p> <ul style="list-style-type: none"> ● Theories of language development (e.g., learning, Nativist, Interactionist) ● Influence of language on cognition ● Different brain areas control language and speech (PSY, BIO) 	<p>PSY 101, 321, 351 & BIO 403, 403L, 415</p>	
<p>Emotion</p> <ul style="list-style-type: none"> ● Three components of emotion (i.e., cognitive, physiological, behavioral) ● Universal emotions (e.g., fear, anger, happiness, surprise, joy, disgust, sadness) ● Adaptive role of emotion ● Theories of emotion <ul style="list-style-type: none"> ○ James-Lange theory ○ Cannon-Bard theory ○ Schachter-Singer theory ● The role of biological processes in perceiving emotion (PSY, BIO) <ul style="list-style-type: none"> ○ Generation and experience of emotions involve many brain regions ○ The role of the limbic system in emotion ○ Emotional experiences can be stored as memories that can be recalled by similar circumstances ○ Prefrontal cortex is critical for emotional experience, and is also important in temperament and decision making ○ Emotion and the autonomic nervous system ○ Physiological markers of emotion (signatures of emotion) 	<p>PSY 101, 366 & BIO 403, 403L, 415</p>	
<p>Stress</p> <ul style="list-style-type: none"> ● The nature of stress <ul style="list-style-type: none"> ○ Appraisal ○ Different types of stressors (e.g., cataclysmic events, personal, etc.) ○ Effects of stress on psychological functions ● Stress outcomes/response to stressors <ul style="list-style-type: none"> ○ Physiological (PSY, BIO) ○ Emotional ○ Behavioral ● Managing stress (e.g., exercise, relaxation techniques, spirituality, etc.) 	<p>PSY 101, 351, 366, 422 & BIO 403, 403L, 415</p>	

<p>Biological Bases of Behavior</p> <ul style="list-style-type: none"> • The nervous system <ul style="list-style-type: none"> ○ Neurons <ul style="list-style-type: none"> ▪ The reflex arc ○ Neurotransmitters ○ Peripheral nervous system ○ Central nervous system <ul style="list-style-type: none"> ▪ The brain <ul style="list-style-type: none"> ○ The brainstem ○ The cerebellum ○ The diencephalon (BIO) ○ The cerebrum ○ Control of voluntary movement in the cerebral cortex ○ Information processing in the cerebral cortex ○ Lateralization of cortical functions ○ Methods of studying the brain • Neurons communicate and influence behavior (PSY) • Influence of neurotransmitters on behavior (PSY) • The endocrine system <ul style="list-style-type: none"> ○ Components of the endocrine system ○ Effects of the endocrine system on behavior • Behavioral genetics <ul style="list-style-type: none"> ○ Genes, temperament, and heredity ○ Adaptive value of traits and behaviors ○ Interaction between heredity and environmental influences • Genetic and environmental factors contribute to the development of behaviors <ul style="list-style-type: none"> ○ Experience and behavior (PSY) ○ Regulatory genes and behavior (BIO) ○ Genetically based behavioral variation in natural populations • Human physiological development (PSY) <ul style="list-style-type: none"> ○ Prenatal development ○ Motor development ○ Developmental changes in adolescence 	<p>PSY 101, 321, 322, 323, 351, 366, 422</p> <p>BIO 312, 403, 415, 475</p>	<p>4</p>
<p>Personality</p> <ul style="list-style-type: none"> • Theories of personality <ul style="list-style-type: none"> ○ Psychoanalytic perspective ○ Humanistic perspective ○ Trait perspective ○ Social cognitive perspective ○ Biological perspective ○ Behaviorist perspective • Situational approach to explaining behavior 	<p>PSY 101, 366</p>	

<p>Psychological Disorders</p> <ul style="list-style-type: none"> • Understanding psychological disorders <ul style="list-style-type: none"> ○ Biomedical vs. biopsychosocial approaches ○ Classifying psychological disorders ○ Rates of psychological disorders • Types of psychological disorders <ul style="list-style-type: none"> ○ Anxiety disorders ○ Somatoform disorders ○ Mood disorders ○ Schizophrenia ○ Dissociative disorder ○ Personality disorders • Biological bases of nervous system disorders (PSY, BIO) <ul style="list-style-type: none"> ○ Schizophrenia ○ Depression ○ Alzheimer's disease ○ Parkinson's disease ○ Stem cell-based therapy to regenerate neurons in CNS (BIO) 	<p>PSY 101, 366, 422</p>	<p>5</p>
<p>Motivation</p> <ul style="list-style-type: none"> • Factors that influence motivation <ul style="list-style-type: none"> ○ Instinct ○ Arousal ○ Drives <ul style="list-style-type: none"> ▪ Negative feedback systems (PSY, BIO) ○ Needs • Theories that explain how motivation affects human behavior <ul style="list-style-type: none"> ○ Drive reduction theory ○ Incentive theory ○ Other: cognitive and need based theories • Application of theories of motivation to understand behaviors (e.g., eating, sexual, drug and alcohol use, etc.) <ul style="list-style-type: none"> ○ Biological factors in regulation of these motivational processes ○ Socio-cultural factors in regulation of these motivational processes 	<p>PSY 101, 366</p>	
<p>Attitudes</p> <ul style="list-style-type: none"> • Components of attitudes (i.e., cognitive, affective, and behavioral) • The link between attitudes and behavior <ul style="list-style-type: none"> ○ Processes by which behavior influences attitudes (e.g., foot-in-the door phenomenon, role-playing effects) ○ Processes by which attitudes influence behavior ○ Cognitive dissonance theory 	<p>PSY 101, 341, 366</p>	

MCAT Mapping: Psychology

<p>How the Presence of Others Affects Individual Behavior</p> <ul style="list-style-type: none"> • Social facilitation • Deindividuation • Bystander effect • Social loafing • Peer pressure (PSY, SOC) 	<p>PSY 101, 341, 366 & SOC 340</p>	<p>6</p>
<p>Group Processes</p> <ul style="list-style-type: none"> • Group polarization (PSY) • Groupthink 	<p>PSY 101, 341 & SOC 340</p>	
<p>Culture</p> <ul style="list-style-type: none"> • Assimilation • Multiculturalism (SOC) • Subcultures (SOC) 	<p>PSY 341 & SOC 101</p>	
<p>Socialization</p> <ul style="list-style-type: none"> • Definition of socialization (SOC) • Norms • Agents of socialization (e.g., the family, mass media, peers, workplace) (SOC) • Stigma and deviance (SOC) • Conformity and obedience 	<p>PSY 101, 341 & SOC 101, 340</p>	
<p>Habituation and Dishabituation</p>	<p>PSY 101, 322, 351</p>	
<p>Associative Learning</p> <ul style="list-style-type: none"> • Classical conditioning (PSY, BIO) <ul style="list-style-type: none"> ○ Neutral, conditioned, and unconditioned stimuli ○ Conditioned and unconditioned response ○ Processes: acquisition, extinction, spontaneous recovery, generalization, discrimination • Operant conditioning (PSY, BIO) <ul style="list-style-type: none"> ○ Processes of shaping and extinction ○ Types of reinforcement: positive, negative, primary, conditional ○ Reinforcement schedules: fixed-ratio, variable-ratio, fixed-interval, variable-interval ○ Punishment ○ Escape and avoidance learning • Cognitive processes that affect associative learning • Biological factors that affect associative learning <ul style="list-style-type: none"> ○ Innate behaviors are developmentally fixed ○ Learned behaviors are modified based on experiences ○ Development of learned behaviors (PSY, BIO) 	<p>PSY 101, 322, 351 BIO 415</p>	
<p>Observational Learning</p> <ul style="list-style-type: none"> • Modeling • Biological processes that affect observational learning <ul style="list-style-type: none"> ○ Mirror neurons ○ Role of the brain in experiencing vicarious emotions • Applications of observational learning to explain individual 	<p>PSY 101, 322, 351</p>	

behavior		
<p>Theories of Attitude and Behavior Change</p> <ul style="list-style-type: none"> • Elaboration Likelihood Model <ul style="list-style-type: none"> ○ Information processing routes to persuasion (e.g., central and peripheral route processing) • Social Cognitive theory • Factors that affect attitude change (e.g., changing behavior, characteristics of the message and target, social factors) 	PSY 101, 341	7
<p>Self Concept and Identity</p> <ul style="list-style-type: none"> • Definitions of self-concept, identity, and social identity • The role of self-esteem, self-efficacy, and locus of control in self-concept and self-identity (PSY) • Different types of identities (e.g., race/ethnicity, gender, age, sexual orientation, class) 	PSY 101, 341, 351, 361 & SOC 340, 341	
<p>Formation of Identity</p> <ul style="list-style-type: none"> • Stages of identity development <ul style="list-style-type: none"> ○ Theories of developmental stages (e.g., Erikson, Vygotsky, Kohlberg, Freud) (PSY) • Influence of social factors on identity formation <ul style="list-style-type: none"> ○ Influence of individuals (e.g., imitation, role-taking) ○ Influence of group (e.g., reference group) • Influence of culture and socialization on identity formation 	PSY 101, 341, 351, 361 & SOC 101, 340	
<p>Attributing Behavior to Persons or Situations</p> <ul style="list-style-type: none"> • Attribution theory <ul style="list-style-type: none"> ○ Fundamental attribution error ○ How culture affects attributions • How self-perceptions shape our perceptions of others • How perceptions of the environment shape our perceptions of others 	PSY 101, 341, 366	
<p>Prejudice and Bias</p> <ul style="list-style-type: none"> • Definition of prejudice • Processes that contribute to prejudice <ul style="list-style-type: none"> ○ Power, prestige, and class (SOC) ○ The role of emotion in prejudice (PSY) ○ The role of cognition in prejudice (PSY) • Stereotypes • Ethnocentrism (SOC) <ul style="list-style-type: none"> ○ In-group and out-group ○ Ethnocentrism vs. cultural relativism 	PSY 101, 431 & SOC 101, 328	
<p>Processes Related to Stereotypes</p> <ul style="list-style-type: none"> • Self-fulfilling prophecy • Stereotype threat 	PSY 101, 341	
<p>Elements of Social Interaction</p> <ul style="list-style-type: none"> • Statuses (SOC) • Roles • Groups 	PSY 101, 341 & SOC 101, 340	

<ul style="list-style-type: none"> • Networks (SOC) • Organizations (SOC) 		8
<p>Self-presentation and Interacting with Others</p> <ul style="list-style-type: none"> • Expressing and detecting emotion <ul style="list-style-type: none"> ○ Gender shapes expression (SOC 322,332) ○ Culture shapes expression (ANT 150) • Impression management <ul style="list-style-type: none"> ○ Front stage vs. back stage self (Dramaturgical approach) (SOC) • Verbal and nonverbal communication (ANT 315) • Animal signals and communication (PSY, BIO) 	PSY 101, 341 & SOC 340	
<p>Social Behavior</p> <ul style="list-style-type: none"> • Attraction • Aggression • Attachment • Social support • Biological explanations of social behavior in animals (PSY, BIO) <ul style="list-style-type: none"> ○ Foraging behavior (BIO) ○ Mating behavior and mate choice ○ Applying game theory (BIO) ○ Altruism ○ Inclusive fitness (BIO) 	PSY 101, 341	
<p>Discrimination</p> <ul style="list-style-type: none"> • Individual vs. institutional discrimination (SOC) • The relationship between prejudice and discrimination • How power, prestige, and class facilitate discrimination (SOC) 	PSY 101 & SOC 101, 339	
<p>Culture</p> <ul style="list-style-type: none"> • Material culture • Symbolic culture <ul style="list-style-type: none"> ○ Language and symbols ○ Values and beliefs (PSY, SOC) ○ Norms and rituals (PSY, SOC) • Culture and social groups (PSY, SOC) • Evolution and human culture (PSY, BIO) 	SOC 101, ANT 150 & PSY 368, 443	
<p>Health Disparities</p> <ul style="list-style-type: none"> • Race, gender, and class inequalities in health 	PSY 366	
<p>Healthcare Disparities</p> <ul style="list-style-type: none"> • Race, gender, and class inequalities in healthcare 	PSY 366	