Module IV. Classical (Pavlovian) Conditioning
- Common examples of
- Goal of Pavlov’s original research
- Psychic Secretion
- (Un)Conditioned Stimuli and (Un)Conditioned Responses
- Stimulus Timing and Presentation
- Interstimulus Interval (ISI)
  - Ideal ISI
- Intertrial Interval (ITI)
- Distinguishing CC from Habituation procedure
- Extinction and Forgetting
- Spontaneous Recovery (Pavlov’s Theory vs. Attention/Interest)
- Disinhibition
- Rapid Reacquisition
- Conditioned Inhibition
- Generalization
- Discrimination
- Second-Order Conditioning (and Third-, Fourth-, etc.)
- Sensory Preconditioning
- Blocking
- Latent Inhibition
- Contextual Conditioning
- Role of Hippocampus
- Stimulus Substitution Theory (Pavlov) vs. Rescorla-Wagner Model (1973)
- S-S vs. S-R
- US Devaluation
- Overexpectancy
- More on *Aplysia*
- Rabbit eye blink conditioning
- Cerebellar Cortex and Interpositus Nucleus
- Pathways of Activation
- Red Nucleus vs. Interpositus Nucleus (Krupa et al., 1993)
- Bait Shyness and Taste Aversion
- Belongingness
- Hippocampus: Trace vs. Delay Conditioning, Blocking, Latent Inhibition

Module V. Habits and Instrumental Learning
- Instrumental and Operant
- Law of Effect
- Habits
• Instrumental vs. Classical
• Thorndike (e.g., 1898) and Puzzle Boxes
• Random vs. Purposeful Behavior
• Annoying vs. Satisfying Events
• Role of reinforcement in learned association
• Terminal vs. Interim responses
• Superstitious Behavior
• Belongingness (e.g., Breland & Breland, 1961; Shettleworth, 1975; Timberlake & Lucas, 1989)
• Reinforcer Devaluation (Rescorla, 1988)
• Learned Helplessness (Seligman)
• Maize and Blue: T-Maze, Radial Arm Maze, Morris Water Maze
• Skinner Box
• Secondary Reinforcer
• Shaping
• Autosshaping (explanation of; Jenkins & Moore, 1973)
• Utility of Conditioning
• Behavioral Modification
• Token Economies
• (Fixed vs. Variable) and (Interval vs. Ratio) Schedules of Reinforcement
• Partial Reinforcement Extinction Effect (PREE)
  o Frustration (Amsel) vs. Sequential (Capaldi)
• Matching Law and Probability Matching
• Response Chaining (explanation of; Lashley, 1951)
• Motor Programs
• Skill Acquisition (Anderson, 1982)
• Double Dissociations between Striatum and Hippocampus (e.g., Packard et al., 1989)
• Striatum (caudate, putamen, nucleus accumbens)
• Response vs. Place Learning
• Parkinson’s Disease and Huntington’s Disease patients and Habit Learning (e.g., Knowlton et al., 1996; Poldrack et al., 1999)

Module VI. Emotional Learning & Memory
• Emotional learning in humans
• Amnesia and Emotional Learning
• Single trial learning
• Prosopagnosia
• Emotional learning in animals
• Fear conditioning (e.g., LeDoux, 1990)
• Cue vs. Context Learning
• Phobias
• Fear-Potentiated Startle Reflex (e.g., Davis et al., 1994)
• Conditioned Place Preference
• Second-Order Conditioning (e.g., Everitt & Robbins, 1992)
- Familiarity and Memory
  - Mere Exposure Hypothesis (Zajonc, 1968)
- Flashbulb Memories (e.g., Colegrove, 1899)
  - Type of Remembered Information (Brown & Kulik, 1977)
  - Role of Media Exposures, Rehearsals, and Affect (i.e., Emotional Reaction)
  - Long-term retention of flashbulb memories (e.g., Schmolk et al., 2000)
- Weapon Focus
- Emotion and Episodic Memory
  - Paired Associate Memory (e.g., Kleinsmith & Kaplan, 1963)
  - Arousing Stories (e.g., Cahill & McGaugh, 1995; 1998)
- Papez (1937) Circuits
- MacLean (1949) and the Visceral Brain (Reptilian, Paleomammalian, Neomammalian)
- Amygdala Nuclei (Central, Basal/Basolateral, Lateral)
  - Input and Output Pathways
- Kluver-Bucy Disorder (*psychic blindness*)
- Patient S.M. and Urbach-Wiethe disease
- Role of Amygdala in Perceiving and Expressing Emotion (e.g., Adolphs et al., 1994; 1995, Breiter et al., 1996; Sommerville et al., 2000)
- Neural Circuits Underlying Fear Conditioning (e.g., Bechara et al., 1995; McDonald & White, 1993; Phillips & LeDoux, 1992)
- Two Routes for Emotion Processing (Kensinger & Corkin 2003; 2004)
- Central Nucleus and Instrumental Learning (e.g., Gallagher & Holland, 1994; Kapp et al., 1991)
- Basolateral Nucleus and Cognitive Emotional Memory (e.g., Cahill & McGaugh, 1998; Cahill et al., 1996; McGaugh et al., 1996; Packard & McGaugh, 1994)
- Remembering by the Seat of Your Pants (Goldinger & Hansen, 2005)