Syllabus Mapping:

Biological Psychology

Chapter 02: Structure and Function of the Neuron, Anatomy of the Brain

JoVE Science Education: Advanced Biology — Neuroscience
- An Introduction to Neuroanatomy
- Histological Staining of Neural Tissue
- fMRI: Functional Magnetic Resonance Imaging

JoVE Science Education: Psychology — Neuropsychology
- The Split Brain

JoVE Core Chapter 18: Nervous System
- 18.5 Neuron Structure

JoVE Journal: Medicine
- A Drosophila In Vivo Injury Model for Studying Neuroregeneration in the Peripheral and Central Nervous System

Chapter 03: Methods: Electrophysiology, response time

JoVE Science Education: Advanced Biology — Neuroscience
- An Introduction to Neuroanatomy
- An Introduction to Cellular and Molecular Neuroscience
- Whole-cell Patch-clamp Recordings in Brain Slices
- Patch Clamp Electrophysiology

JoVE Journal: Biology
- Electrophysiological Methods for Recording Synaptic Potentials from the NMJ of Drosophila Larvae

JoVE Journal: Neuroscience
Chapter 04: Methods: Structural and Functional Imaging

JoVE Science Education: Advanced Biology — Neuroscience
- An Introduction to Neuroanatomy

JoVE Science Education: Psychology — Neuropsychology
- Using Diffusion Tensor Imaging in Traumatic Brain Injury
- Measuring Grey Matter Differences with Voxel-based Morphometry: The Musical Brain

JoVE Science Education: Engineering — Biomedical Engineering
- Micro-CT Imaging of a Mouse Spinal Cord

JoVE Journal: Behavior
- Brain Infarct Segmentation and Registration on MRI or CT for Lesion-symptom Mapping

JoVE Journal: Neuroscience
- Utilizing 3D Printing Technology to Merge MRI with Histology: A Protocol for Brain Sectioning
- Cross-Modal Multivariate Pattern Analysis

JoVE Science Education: Psychology — Behavioral Science
- Electro-encephalography (EEG)

Chapter 05: Methods: Patient/Animal Models, Pharmacology, Neural Stimulation

JoVE Science Education: Psychology — Behavioral Science
- Electro-encephalography (EEG)

JoVE Journal: Behavior
• A Novel Approach to Assess Motor Outcome of Deep Brain Stimulation Effects in the Hemiparkinsonian Rat: Staircase and Cylinder Test
• Stimulating the Lip Motor Cortex with Transcranial Magnetic Stimulation
• Brain State-dependent Brain Stimulation with Real-time Electroencephalography-Triggered Transcranial Magnetic Stimulation
• Transcranial Magnetic Stimulation for Investigating Causal Brain-behavioral Relationships and their Time Course
• Modulating Cognition Using Transcranial Direct Current Stimulation of the Cerebellum

JoVE Journal: Biology
• A Craniotomy Surgery Procedure for Chronic Brain Imaging

JoVE Journal: Neuroscience
• Electrode Positioning and Montage in Transcranial Direct Current Stimulation
• Transcranial Direct Current Stimulation (tDCS) in Mice

Chapter 06: Cognitive Function: Vision

JoVE Science Education: Psychology — Behavioral Science
• An Introduction to Cognition

JoVE Science Education: Psychology — Neuropsychology
• The Split Brain

JoVE Science Education: Psychology — Cognitive Psychology
• Perspectives on Cognitive Psychology
• Visual Statistical Learning
• Mental Rotation
• Multiple Object Tracking
• Visual Search for Features and Conjunctions

JoVE Science Education: Psychology — Sensation & Perception
• Color Afterimages
• Finding Your Blind Spot and Perceptual Filling-in
Chapter 07: Spatial Processing and Attention

JoVE Science Education: Psychology — Experimental Psychology

- From Theory to Design: The Role of Creativity in Designing Experiments
- Methods to Explore the Influence of Top-down Visual Processes on Motor Behavior
- A Protocol of Manual Tests to Measure Sensation and Pain in Humans

JoVE Journal: Behavior

- The 4 Mountains Test: A Short Test of Spatial Memory with High Sensitivity for the Diagnosis of Pre-dementia Alzheimer’s Disease

Chapter 08: Movement and Action

JoVE Science Education: Psychology — Neuropsychology

- Motor Maps
- Using TMS to Measure Motor Excitability During Action Observation

JoVE Core Chapter 20: Nervous System

- 20.9: Motor Units

JoVE Science Education: Clinical Skills — Physical Examinations III

- Cranial Nerves Exam I (I-VI)
- Cranial Nerves Exam II (VII-XII)

Chapter 09: Memory

JoVE Science Education: Psychology — Neuropsychology

- Learning and Memory: The Remember-Know Task
- Anterograde Amnesia

JoVE Science Education: Psychology — Behavioral Science

- An Introduction to Learning and Memory
- Spatial Memory Testing Using Mazes

JoVE Science Education: Psychology — Cognitive Psychology

- Motor Learning in Mirror Drawing
- The Precision of Visual Working Memory with Delayed Estimation
Chapter 10, 11: Hearing & Speaking

JoVE Core Chapter 19: Sensory Systems
• 19.5: Hearing
• 19.7: The Cochlea

JoVE Science Education: Psychology — Neuropsychology
• Language: The N400 in Semantic Incongruity
• Decoding Auditory Imagery with Multivoxel Pattern Analysis

Chapter 12, 13: Reading & Numerical Processing

JoVE Science Education: Psychology — Cognitive Psychology
• Approximate Number Sense Test
• Verbal Priming

JoVE Science Education: Psychology — Developmental Psychology
• Numerical Cognition: More or Less

JoVE Journal: Behavior
• Experimental Paradigm for Measuring the Effect of Induced Emotion on Grammar Learning

JoVE Science Education: Psychology — Sensation & Perception
• Crowding

Chapter 14: Executive Function

JoVE Science Education: Psychology — Developmental Psychology
• Executive Function and the Dimensional Change Card Sort Task

JoVE Science Education: Psychology — Neuropsychology
• Executive Function in Autism Spectrum Disorder

JoVE Journal: Behavior
Chapter 15: Social Cognition and Emotion

JoVE Science Education: Psychology — Neuropsychology
- Physiological Correlates of Emotion Recognition

JoVE Journal: Behavior
- Conscious and Non-conscious Representations of Emotional Faces in Asperger’s Syndrome
- Central and Divided Visual Field Presentation of Emotional Images to Measure Hemispheric Differences in Motivated Attention

JoVE Science Education: Psychology — Experimental Psychology
- Self-report vs. Behavioral Measures of Recycling

JoVE Science Education: Psychology — Social Psychology
- Analyzing Situations in Helping Behavior