PSYC 45: INTRODUCTION TO COGNITIVE PSYCHOLOGY

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Fall 2026
Units:	4
Hours:	4 lecture per week (48 total per quarter)
Advisory:	PSYC C1000 or C1000H, and ENGL C1000, C1000H, or ESLL 26.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Area 4: Social & Behavioral Sciences
Transferable:	CSU/UC
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- Each student will demonstrate knowledge of the key concepts and theories in cognitive psychology
- Each student will demonstrate the ability to apply principles and research from cognitive psychology to real-life situations, everyday experiences, and diverse cultural contexts

Description

This course introduces students to cognitive psychology and main areas of research such as memory, decision making, cognitive biases, attention, and perception. The course will provide an overview of key theories and empirical studies in this field. Students will explore how we solve problems, make decisions, and create memories, as well as how our behavior is influenced by brain activity and various cognitive processes. Students will also gain an understanding of the relationship between cognitive functions and cultural contexts.

Course Objectives

The student will be able to:

1. Define cognitive psychology and explain its purpose and interdisciplinary nature
2. Identify and critically analyze key concepts and theories in cognitive psychology
3. Explore how brain structures and neural mechanisms contribute to various cognitive processes
4. Understand how cognitive processes work, such as memory, perception, decision-making, and attention
5. Examine and evaluate methods used in cognitive psychology considering cultural contexts
6. Apply principles of cognitive psychology to real-life culturally diverse situations and controversial topics

Course Content

1. An introduction to cognitive psychology
    a. What is Mind?
    b. The scope and application of cognitive psychology
    c. Historical perspectives and the cognitive revolution
    d. Research methods in cognitive psychology
    e. The evolution of artificial intelligence (AI) in cognitive psychology
2. Cognitive neuroscience
    a. The organization of the nervous system
    b. The role of the brain in cognition
    c. Brain cells: neurons and glia
    d. The anatomy of the brain: hindbrain, midbrain, and forebrain
    e. The cerebral cortex and localization of function
    f. Lateralization of functions, including gender and cultural differences
    g. Brain imaging techniques
3. Perception
    a. Basic characteristics of perception
    b. Human object perception vs. computer object recognition
    c. Sensation vs. perception
    d. The visual system
    e. Face recognition
    f. Theories of perception
        i. Bottom-up theory
        ii. Top-down theory
        iii. Helmholtz's Theory
        iv. Gestalt's Law
        v. Gibson's Theory
        vi. Neurophysiological theories
    g. The perception of depth
    h. Illusions
    i. Cognitive psychology and technology: virtual reality
    j. Deficits in perception
4. Attention
    a. Selective attention and models of attention
    b. Divided attention
    c. Automatic and controlled processes
    d. Lapses and disruptions in attention (e.g., spatial neglect, change blindness, ADHD)
    e. Cultural variations in attending to stimuli (holistic vs. analytic processing)
5. Memory
    a. Memory processes
    b. Sensory memory
    c. Short-term/working memory
    d. Long-term memory
    e. Models of memory
    f. Memory gaps, errors, and forgetting
    g. Implications of eyewitness testimony
    h. Neurophysiology of memory
        i. Outstanding and deficient memory
6. The organization of knowledge

   a. Pattern recognition
   b. Cognitive scripts
   c. Concepts and categories
7. Decision making and reasoning
   a. Making judgments from observations
   b. Inductive vs. deductive reasoning
   c. Heuristics
   d. Dual system approach to decision-making
   e. The neuroscience of decision-making
   f. Emotion and decision-making
   g. Decision-making and culture
8. Problem-solving and creativity
   a. Types of problems
   b. Problem-solving strategies
   c. Aids and obstacles to problem-solving
   d. Theoretical approaches to solving problems
   e. Cultural differences in problem-solving
   f. What creativity is
   g. The creative brain and the influence of culture on creativity
9. Language
   a. Properties of language
   b. The structure of language
   c. Language production and comprehension
   d. Understanding meaning and sentences
   e. Neuropsychology of language
   f. Speech and language pathologies
   g. Multiple languages
   h. Music and language
   i. Artificial intelligence and language
   j. Human intelligence
   k. What intelligence is
   l. History of intelligence
   m. Theories and measures of intelligence
   n. Intelligence and culture

Lab Content

Not applicable.

Special Facilities and/or Equipment

When taught as an online distance learning section, students and faculty need ongoing and continuous internet and email access.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Examinations (e.g., multiple choice, short answers, essay questions)
Quizzes
Oral/video presentations
Written and/or oral analytical reflections
Lecture

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture
Active learning exercises
Collaborative activities (e.g., group discussions, projects, small group exercises)
Media (e.g., videos, podcasts)

Representative Text(s) and Other Materials

Goldstein, E. Bruce. Cognitive Psychology: Connecting Mind, Research, and Everyday Experience, 6th ed.. 2025.

Reisberg, D.. Cognition: Exploring the Science of the Mind, 8th ed.. 2021.

. Introduction to Memory and Cognition - Open Educational Resources. 2023.

Introduction to Memory and Cognition OER link: https://bobsthinktank.github.io/PSYC341OER/

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Reading assignments (examples of relevant past and current journal articles)
   a. Tversky, A., and D. Kahneman (1974). "Judgment under Uncertainty: Heuristics and Biases." Science, New Series, Vol. 185, No. 4157, pp. 1124-1131.
   b. Johnson-Laird, P. N. (2024). "Is creativity computable?" Journal of Cognitive Psychology, 1–22. https://doi.org/10.1080/20445911.2024.2313354
2. Book excerpts on contemporary applications (examples of topics)
   a. AI's role in modeling mental processes
   b. Cross-cultural perspectives in cognition
3. Outside of class assignments (examples)
   a. Cognitive exercises: practicing cognitive tasks or simulations online to explore concepts such as attention, reaction times, or problem-solving (e.g., the Stroop effect)
   b. Cognitive science talks/webinars: attending talks or webinars on psychology or cognitive science and reflecting on topics such as memory, perception, or problem-solving

Discipline(s)

Psychology