

COGNITIVE SCIENCE, BACHELOR OF ARTS

College of Letters & Science

The Major Programs

The Cognitive Science major is designed to provide a broad interdisciplinary approach to the study of mind that includes courses from different departments and attracts students with a variety of interests. It emphasizes a multifaceted approach to the study of the mind integrating concepts and techniques from psychology, artificial intelligence, linguistics, neurology, philosophy and other relevant fields.

For students interested in the liberal arts the Cognitive Science major can be pursued as a Bachelor of Arts (A.B.) program. Alternatively, it can be pursued as a Bachelor of Science (B.S.) program for students with a stronger interest in the mathematical, neurological and computational foundations of the discipline. The main objective of both programs is to give the student a broad grounding in the integrated sciences of the mind and to connect approaches from different fields. Students must complete a number of core courses for the degree, as well as a number of specialty courses on such wide-ranging topics as logic for artificial intelligence, computational linguistics, cognitive neuroscience, animal cognition and the psychology of music.

Career Pathways

A degree in Cognitive Science provides broad intellectual foundations useful for careers in a variety of areas, including teaching, business, social work/counseling and the information technology industry. Undergraduate education in cognitive science also prepares the student for graduate study in appropriate subfields of psychology, linguistics, philosophy and informatics. It is also suitable training for pre-medicine, pre-law, and pre-management students.

Major Advisors

Staff advisors are located in the Blue Ridge Office Building. For information about how to contact a major advisor, see Major Advising (<https://yellowcluster.ucdavis.edu/advising/undergraduate/major-advising/>).

The major requirements below are in addition to meeting University Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/>) & College Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/>); unless otherwise noted. The minimum number of units required for the Cognitive Science Bachelor of Arts is 72.

Code	Title	Units
Preparatory Subject Matter		
<i>Cognitive Science</i>		
CGS 001/PHI 010	Introduction to Cognitive Science	4
<i>Linguistics</i>		
LIN 001 or LIN 001Y	Introduction to Linguistics Introduction to Linguistics	4
<i>Philosophy</i>		
PHI 012	Introduction to Symbolic Logic	4

PHI 013G	Minds, Brains, & Computers with Discussion (Discontinued for spring 2026) **	4
<i>Psychology</i>		
PSC 001 or PSC 001V or PSC 001Y	General Psychology General Psychology General Psychology	4
<i>Research Methods</i>		
PSC 041 or PSC 041V	Research Methods in Psychology (recommended to take Statistics before Research Methods) Research Methods in Psychology	4
<i>Statistics</i>		
STA 013 or STA 013Y or STA 100	Elementary Statistics Elementary Statistics Applied Statistics for Biological Sciences	4
Preparatory Subject Matter Subtotal		28
Depth Subject Matter		
<i>Important: Each course may only be used to satisfy one Cognitive Science major requirement; the same course cannot be used for multiple groups.</i>		
PSC 100 or PSC 100Y	Introduction to Cognitive Psychology Introduction to Cognitive Psychology	4
PHI 112	Intermediate Symbolic Logic	4
<i>Group A: Cognitive Science Topical Courses</i>		
CGS Topical Course: choose 1 upper division course from this list. (https://ucdavis.box.com/s/qvabknkd6tuazt836bq3uyccctnzjjc/) ¹		
<i>Group B: Computation</i>		
Choose one from Group B:		
LIN 177	Computational Linguistics	
PHI 133	Logic, Probability, & Artificial Intelligence	
CMN 150V	Computational Social Science	
CMN 151	Simulating Communication Processes	
<i>Concentration Areas</i>		16
Choose 16 units from your choice of two groups from Groups B-F		
<i>CGS Electives</i>		
Choose 12 additional units from Groups B-G		
<i>Group C: Neuroscience</i>		
PSC 133	Neuroeconomics/Reinforcement Learning & Decision Making	
PSC 121	Physiological Psychology	
PSC 135	Cognitive Neuroscience: The Biological Foundations of the Mind	
PSC 139	Advanced Cognitive Neuroscience	
PSC 145	Developmental Cognitive Neuroscience	
<i>Group D: Linguistics</i>		
LIN 103A or LIN 103AV	Linguistic Analysis I: Phonetics, Phonology, Morphology Linguistic Analysis I: Phonetics, Phonology, & Morphology	
LIN 103B	Linguistic Analysis II: Morphology, Syntax, Semantics	

LIN 131	Introduction to Syntactic Theory	STA 106	Applied Statistical Methods: Analysis of Variance
LIN 141	Semantics	STA 108	Applied Statistical Methods: Regression Analysis
LIN 171	Introduction to Psycholinguistics		
LIN/EDU 173	Language Development		
Group E: Philosophy		Depth Subject Matter Subtotal	44
PHI 103	Philosophy on Mind		
PHI 104	The Evolution of Mind		
PHI 129	Knowledge & the A Priori		
PHI 136	Formal Epistemology		
Group F: Psychology		Total Units	72
PSC 101	Introduction to Biological Psychology	1	For a list of approved <i>CGS Topical Courses</i> , please see the major worksheet (https://yellowcluster.ucdavis.edu/cognitivescience/).
PSC 130	Human Learning & Memory		
PSC 131	Perception	2	These breadth electives allow students to expand their methodological/analytical toolkit and/or see how their core cognitive science classes intersect with broader interdisciplinary topics.
PSC 132	Language & Cognition		
PSC 136	Psychology of Music		
PSC 137	Neurobiology of Learning & Memory		
PSC 140	Developmental Psychology		
or PSC 140V	Developmental Psychology		
or PSC 140Y	Developmental Psychology		
PSC 141	Cognitive Development or HDE 101 DISC		
Group G: Breadth Electives²			
CMN 101	Communication Theories		
or CMN 101V	Communication Theories		
or CMN 101Y	Communication Theories		
CMN 121	Language Use in Conversation		
EDU 110	Educational Psychology: General		
EDU/LIN 173	Language Development		
HDE 100C	Adulthood & Aging		
HDE 161	Technology Use, Health, & Aging		
HDE 163	Cognitive Neuropsychology in Adulthood & Aging		
LIN 112	Phonetics		
LIN 121	Morphology		
LIN 150	Languages of the World		
LIN 152	Language Universals & Typology		
LIN 182	Multilingualism		
PHI 102	Theory of Knowledge		
PHI 112	Intermediate Symbolic Logic		
PHI 125	Theory of Action		
PHI 128	Rationality		
PHI 137A	Philosophy of Language: Theory of Reference		
PHI 137B	Philosophy of Language: Truth & Meaning		
PHI 137C	Philosophy of Language: Semantics & Pragmatics		
PSC 113	Developmental Psychobiology		
PSC/NPB 124	Comparative Neuroanatomy		
PSC 142	Social & Personality Development or HDE 102 DISCONTINUED FOR SUMMER 2026 **		
PSC 148	Developmental Disorders		
PSC 152	Social Cognition		