

Cognitive Science Program Focus Areas Courses in bold strongly recommended.

Cognitive Science Focus Areas

One class in **bold** is strongly recommended.

<u>Cognitive Science of Design</u>	
COGS 26	Philosophy and Computers
COSC 21	Foundations of Digital Design
COSC 23.01	Augmented and Virtual Reality Design
COSC 25.01	Intro to UI/UX Design I
COSC 29.05	Digital Fabrication
COSC 29.06	Digital Tangible User Interfaces
COSC 52	Full-Stack Web Development
COSC 67	Human Computer Interaction
ENGS 9	Everyday Technology
ENGS 12	Design thinking
ENGS 15.09	Design Ethics
ENGS 15.07	Research Methods for Human Centered Design
ENGS 15.10	Narrative Design for Innovators
ENGS 15.11	Design & Education
ENGS 18	Systems Dynamics in Policy Design and Analysis
ENGS 44	Sustainable Design
FILM 51	Game Design Studio
PSYC 21	Perception
PSYC 53.10	Social and Affective Motivations in Decision-Making
PSYC 54.05	Neuromarketing and Consumer Neuroscience
TUCK 2	Principles of Marketing

Consciousness

COGS 21	Intro to Computational Neuroscience
COGS 50.01	Animal Minds
COGS 50.04	Theories of Consciousness
COGS 50.08	Modeling Mind and Behavior
ENGL 55.08	Neuroscience and the Novel
ENGL 64.06	Animal, Vegetable, Medium: Writing Nonhuman Sentience and Communication
LING 11.12	Language and Cognition
PHIL 28	Phenomenology and Existentialism
PHIL 80.23	Philosophy and the Quantum World
PHIL 80.25	Imagination
PHYS 82.01	Question Reality
PSYC 81.08	Animal Cognition
PHIL 34	Language and Thought
PHIL 35	Mind and Psychology
PHIL 50.37	Self-Consciousness
PSYC 21	Perception
PSYC 38	Cognitive Neuroscience
PSYC 51.01	The Neuroscience of the mind-body problem
PSYC 51.12	Visual Intelligence
PSYC 53.16	Are We Free? Evolution, Neuroscience and the Problem of Human Agency
PSYC 60	Principles of Human Brain Mapping with fMRI
PSYC 81.04	Neural Basis of Human Imagination
PSYC 81.10	Neural Bases of Attention and Consciousness
REL 41.04	Buddhist Meditation Theory

Decision Making

COGS 21	Introduction to Computational Neuroscience
COGS 50.08	Modeling Mind and Behavior
ECON 21	Microeconomics
ECON 35	Games and Economic Behavior
ENGS 12	Design thinking
PHIL 37	Ethical theory
PHIL 38.02	Ethics, Politics, and the Law
PHIL 50.33	Possibility and Necessity
PHIL 80.12	Free Will, Responsibility, and the Brain

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PSYC 37	Behavioral Neuroscience
PSYC 50.02	Decision Making: Linking Behavior to Brain
PSYC 50.09	Motivation, Drugs, and Addiction
PSYC 51.16	Computational Models of Behavior
PSYC 53.10	Social and Affective Motivations in Decision Making
PSYC 53.16	Are We Free? Evolution, Neuroscience and the Problem of Human Agency
PSYC 54.05	Neuromarketing and Consumer Neuroscience
PSYC 80.02	Neuroeconomics
QSS 18	Introduction to Game Theory
QSS 30.04	Evolutionary Game Theory and Applications
TUCK 2	Principles of Marketing

Foundations of Intelligence

COGS 21	Introduction to Computational Neuroscience
COGS 26	Philosophy and Computers
COGS 32	STEM Learning and Education
COGS 44	Artificial Intelligence
COGS 45	Computational Cognitive Science
COGS 50.08	Modeling Mind and Behavior
COGS 50.10	Information Theory in Cognition
COGS 50.04	Theories of Consciousness
COSC 23.01	Augmented and Virtual Reality Design
COSC 39	Theory of Computation
COSC 67	Introduction to Human-Computer Interaction
COSC 74	Machine Learning and Statistical Data Analysis
COSC 78	Deep Learning
COSC 89.24	Logic and Artificial Intelligence
COSC 89.11	Cognitive Computing with Watson
EDUC 19	Educational Testing
LING 48	Accelerated Computational Linguistics
PHIL 34	Language and Thought
PHIL 6	Logic and Language
PHIL 35	Mind and Psychology
PSYC 21	Perception
PSYC 22	Learning
PSYC 43	Emotion
PSYC 50.02	Decision Making: Linking Behavior to Brain
PSYC 50.08	Neurobiology of Learning and Memory
PSYC 51.12	Visual Intelligence
PSYC 53.10	Social and Affective Motivations in Decision-Making
PSYC 174	Computational Neuroscience: Brain Engineering

Human-AI Interaction

COGS 21	Introduction to Computational Neuroscience
COGS 26	Philosophy and Computers
COGS 44	Artificial Intelligence
COGS 45	Computational Cognitive Science
COGS 50.08	Modeling Mind and Behavior
COGS 50.09	Computational Models of Social Cognition
COGS 50.10	Information Theory in Cognition
COSC 23.01	Augmented and Virtual Reality Design
COSC 25.01	Intro to UI/UX Design I
COSC 29.06	Digital Tangible User Interfaces
COSC 67	Human Computer Interaction
COSC 74	Machine Learning and Statistical Data Analysis
COSC 78	Deep Learning
COSC 89.24	Logic and Artificial Intelligence
COSC 89.33	The Dark Side of AI/ML
ENGS 15.08	AI Demystified: A Roadmap To Understand Evolving Technologies
ENGS 15.09	Design Ethics
ENGS 15.07	Research Methods for Human Centered Design

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ENGL 54.41	Critical AI
PHIL 9.08	Ethics In Information Technology
PSYC 50.02	Decision Making: Linking Behavior to Brain
PSYC 53.10	Social and Affective Motivations in Decision-Making
QSS 45	Artificial Intelligence and Machine Learning for Social Science

Language and Thought

ANTH 4	Peoples and Cultures of Native North America
ANTH 09	Language & Culture
COGS 11.03	Mind, Language, and Morality
COGS 21	Introduction to Computational Neuroscience
COGS 33	The Reading Brain: Education and Development
COGS 44	Artificial Intelligence
COGS 45	Computational Cognitive Science
COGS 50.03	Introduction to Cognitive Linguistics
COGS 50.05	Psycholinguistics
COGS 50.07	Aphasiology and the Neurobiology of Language
COGS 50.10	Information Theory in Cognition
COGS 50.11	Learnability and Semantic Universals
EEER.xx	Horror, Laughter, Fear, Rage: Emotions in Literature and Culture
LING 11.12	Language and Cognition
LING 15	Language Acquisition
LING 17	Sociolinguistics
LING 23	Semantics and Pragmatics
LING 28	Computational Linguistics
LING 48	Accelerated Computational Linguistics
PHIL 34	Language and Thought
PSYC 25	Developmental Psychology
PSYC 53.14	Social Neurocognition

Social Interaction Networks

ANTH 41	Human Evolution
ANTH 44	Language, Gender, & Sexuality
ANTH 57	Origins of Inequality
BIOL 23	Social Evolution: Cooperation and Construction Among Animal Architects
COGS 11.03	Mind, Language and Morality
COGS 50.09	Computational Models of Social Cognition
EDUC 47	Social and Emotional Development
PSYC 23	Social Psychology
PSYC 53.12	The Behavior of groups
PSYC 63	Experimental Study of Human Interaction
PSYC 53.10	Social and Affective Motivations in Decision-making
PSYC 53.14	Social Neurocognition
PSYC 54.08	Leadership
PSYC 83.09	Neurobiology of Social Intelligence
QSS 18	Introduction to Game Theory
QSS 30.04	Evolutionary Game Theory and Applications
QSS 41	Analysis of Social Networks
SOCY 27	Organizations in society
SOCY 38	Status and power in Social Interaction
SOCY 65	Social Psychology of Inequality
SOCY 33	Self and Society