

## Undergraduate Major in COGNITIVE SCIENCE (Catalog Year 2023-24)

### General Requirements

- \_\_\_ Requires 40 credits, at most 21 in any one department.
- \_\_\_ The CLAS requirements for a BA or BS degree apply.
- \_\_\_ At most 6 transfer credits may be applied to the plan.
- \_\_\_ All courses on plan require a grade of C- (1.7) or higher.

### 1. Core Courses (16 credits)

- \_\_\_ COGS 2201 Foundations of Cognitive Science
- \_\_\_ COGS 3584 Seminar in Cognitive Science (1 credit)

Four of the following:

- \_\_\_ ANTH 3250 Cognitive Anthropology
- \_\_\_ CSE 4705 Artificial Intelligence
- \_\_\_ LING 2010Q The Science of Linguistics
- \_\_\_ PHIL 3250/W Philosophy of Mind
- \_\_\_ PSYC 2501 Cognitive Psychology
- \_\_\_ SLHS 4245/W Neurosci. Cog. & Comm. Disorders

### 2. Research (6 credits)

Statistics (one of the following, for at least 3 credits):

- \_\_\_ PSYC 2100(W)Q Principles of Research in Psych.
- \_\_\_ STAT 2215Q Introduction to Statistics II
- \_\_\_ STAT 3025Q Statistical Methods (Calculus level)

Methods (one of the following, for at least 3 credits):

- \_\_\_ ANTH 3003 Field Res. in Soc. Set. (if elected for 3 credits)
- \_\_\_ ANTH 3004 Cultural Research (if elected for 3 credits)
- \_\_\_ ANTH 3090 Dir Field Res in Anth (if elected for 3 credits)
- \_\_\_ LING 3110 Experimental Linguistics
- \_\_\_ PSYC 3250/W Lab in Animal Behavior & Learning
- \_\_\_ PSYC 3251/W Lab in Physiological Psychology
- \_\_\_ PSYC 3253 Sensory Neuroscience Lab
- \_\_\_ PSYC 3450W Lab in Developmental Psychology
- \_\_\_ PSYC 3550W Lab in Cognition
- \_\_\_ PSYC 3551W Lab in Psycholinguistics
- \_\_\_ PSYC 3552 Lab in Sensation and Perception

### 3. Formal Systems Courses (3 credits)

At least 3 credits are required, unless the '†' option is used.

- \_\_\_ COGS 2500Q Coding for Cognitive Science
- \_\_\_ CSE 2300W Digital Logic Design
- \_\_\_ CSE 2500 Introduction to Discrete Systems
- \_\_\_ CSE 3500 Algorithms and Complexity †
- \_\_\_ CSE 3502 Theory of Computation †
- \_\_\_ CSE 3802 Numerical Methods
- \_\_\_ LING 3000Q Intro to Computational Linguistics †
- \_\_\_ LING 3310Q Phonology †
- \_\_\_ LING 3410Q Semantics †
- \_\_\_ LING 3511Q Syntax †
- \_\_\_ Math 2210Q Applied Linear Algebra
- \_\_\_ Math 2410Q Elementary Differential Equations
- \_\_\_ Math 3160 Probability
- \_\_\_ Math 3210 Abstract Linear Algebra
- \_\_\_ Math 3230 Abstract Algebra
- \_\_\_ PHIL 2211Q Symbolic Logic
- \_\_\_ PHIL 3214 Symbolic Logic II

### 4. Advanced Courses\* (12 credits)

Must include courses from at least 3 different departments. Can include core courses not used to satisfy the Core Courses (§1) requirement.

- \_\_\_ ANTH 3200 Human Behavioral Ecology
- \_\_\_ ANTH 3405 Religion and Mind
- \_\_\_ COGS 2345 Language and Racism
- \_\_\_ CSE 3500 Algorithms and Complexity †
- \_\_\_ CSE 3502 Theory of Computation †
- \_\_\_ LING 3000Q Intro to Computational Linguistics †
- \_\_\_ LING 3310Q Phonology †
- \_\_\_ LING 3410Q Semantics †
- \_\_\_ LING 3511Q Syntax †
- \_\_\_ LING 3610W Language and Culture
- \_\_\_ PHIL 2208/W Epistemology
- \_\_\_ PHIL 2210/W Metaphysics
- \_\_\_ PHIL 2212/W Philosophy of Science
- \_\_\_ PHIL 3241 Language: Meaning and Truth
- \_\_\_ PNB 3251 Biology of the Brain
- \_\_\_ PSYC 2200 Physiological Psychology
- \_\_\_ PSYC 2208 Sensory Systems Neuroscience
- \_\_\_ PSYC 2209 Learning & Memory: Brain to Behavior
- \_\_\_ PSYC 2400 Developmental
- \_\_\_ PSYC 2500 Learning
- \_\_\_ PSYC 3100/W History and Systems in Psychology
- \_\_\_ PSYC 3270 Cur. Topics in Behavioral Neuroscience
- \_\_\_ PSYC 3440 Developmental Cognitive Neuroscience
- \_\_\_ PSYC 3500 Psychology of Language
- \_\_\_ PSYC 3501 Sensation and Perception
- \_\_\_ PSYC 3502 Psychology of Consciousness
- \_\_\_ SLHS 2203 Anatomy/Physiology of Speech & Hearing
- \_\_\_ SLHS 2204 Speech and Language Acquisition
- \_\_\_ SLHS 4123 Bilingualism in Typ. & Atyp. Populations
- \_\_\_ SLHS 4254/W Intro. to Lang. Disorders in Children
- \_\_\_ SLHS 4376 Language Impairments & Literacy

\* PSYC 3470 is a variable topics course and can be used as an Advanced Course with approval of advisor.

† Option: Any of the following can be counted towards the 12 credits in Advanced Courses (§4) and simultaneously "check off" the Formal Systems requirement (§3): CSE 3500, 3502; LING 3000Q, 3310Q, 3410Q, 3511Q. Students using this option must take 6 credits in §5. Others need 3 credits in §3 and 3 credits in §5.

### 5. Electives (3-6 credits)

One additional course (two, if the '†' option is used) from the above lists, COGS 3589, COGS 3599, ANTH 4596W, or other related courses from any department, chosen with advisor approval.

1. \_\_\_\_\_
2. \_\_\_\_\_

The writing-in-the-major requirement is fulfilled by taking any of the W courses listed on this plan.

- NOTES:**
1. Commonly needed prerequisites: PSYC 1100 and 1101/3, for all PSYC courses in the major; STAT 1000Q or 1100Q, for all options in §2-Statistics; and at least one of PHIL 1101-1107, for most PHIL courses in the major.
  2. COGS 2201 is a spring-only course, and is best taken in Year 2; COGS 3584 is offered both semesters, and is best taken in Year 3 or 4.
  3. Electives (§5) are similar to "Relateds," but this major does not require the usual 12 credits of "Related Courses".
  4. Double major with Psychological Sciences is strongly discouraged, due to excessive overlap.