

UC San Diego - WASC Exhibit 7.1 Inventory of Educational Effectiveness Indicators

Academic Program	(2a) What are these learning outcomes? <u>Students graduating with a degree should be able to:</u>	(3) Other than GPA, what data/evidence are used to determine that graduates have achieved stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)?	(4) Who interprets the evidence? What is the process?	(5) How are the findings used?
<p>Department: Cognitive Science</p> <p>Major: B.A./B.S. in Cognitive Science B.S. in Cognitive Science/Clinical Aspects of Cognition B.S. in Cognitive Science/Computation B.S. in Cognitive Science/Human Cognition B.S. in Cognitive Science/Human Computer Interaction B.S. in Cognitive Science/Neuroscience</p> <p>(1) Have formal learning outcomes been developed? Yes/No Yes</p> <p>(6) Date of the last Academic Senate Review? [i.e. 2015-16 if the review takes place this academic year] 2014-2015</p> <p>11/29/16</p>	<p>Written Communication See purple coded</p>	<p>Written Communication See purple coded</p>	<p>Written Communication See purple coded</p>	<p>Written Communication See purple coded</p>
	<p>Oral Communication See purple coded</p>	<p>Oral Communication See purple coded</p>	<p>Oral Communication See purple coded</p>	<p>Oral Communication See purple coded</p>
	<p>Quantitative Reasoning: 3. Understand and apply basic research methods in cognitive science, including research design, data analysis, and interpretation.</p>	<p>Quantitative Reasoning • Outcome (5) is met by successfully completing COGS3, COGS10, COGS18, COGS108, COGS109, COGS118ABCD</p>	<p>Quantitative Reasoning • Undergraduate Affairs Committee, Undergraduate Coordinator, and Faculty Undergraduate Advisor oversee requirements, which are endorsed by full faculty</p>	<p>Quantitative Reasoning • Individual course instructors use feedback to modify their courses</p>
	<p>Information Literacy 1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in cognitive science. a. Understand the experimental study of cognition with a focus on sensation and perception b. Understand the neuroscience behind mind and body relationships c. Understand the fundamentals of natural computation and computer programming relevant to cognitive science phenomena and applications d. Understand that cognition extends beyond the boundaries of the person to include the environment, artifacts, social interactions, and culture. 2. Demonstrate how to effectively integrate principles from several of the major domains of knowledge in cognitive science 5. Demonstrate information competence and the ability to use computers and other technology to study cognition and the brain.</p>	<p>Information Literacy • Lower division requirements that impart breadth in cognitive science by providing a foundation in mathematics, neurobiology, sensation and perception, experimental design and interpretation of studies, as well as fundamentals of computer programming needed for modeling cognitive processes. • Minimum of 48 units of upper division courses in the major • Required upper division courses in fundamental cognitive phenomena, distributed cognition, cognitive ethnography and design, cognitive neuroscience, modeling and data analysis, and natural computation • Six electives for the BA and the BS degree • Five optional areas of specialization for the BS degree, with 4 of the required 6 electives in the chosen area • Outcome (1) is met by successfully completing COGS1, COGS10, COGS13, COGS17, COGS14A, COGS14B, COGS18, Math 10ABC or Math 20AB, and Math18 • Outcome (1a) is met by successfully completing the series COGS101AB • Outcome (1b) is met by successfully completing the series COGS107AB • Outcome (1c) is met by successfully completing COGS100 and COGS108 • Outcome (1d) is met by successfully completing</p>	<p>Information Literacy • Undergraduate Council Program Review Committee</p>	<p>Information Literacy • ACS collects annual data from all departments and publishes outcomes</p>

<p>Department: Cognitive Science</p> <p>Major: Cognitive Science (continued page 2)</p>		<p>COGS13 and COGS100.</p> <ul style="list-style-type: none"> • Outcome (3) is met by successfully completing COGS14A and B, Independent Research courses, Honors Program • Outcome (7) is met by the number of students pursuing higher education, satisfaction with major, involvement in Independent Research courses, field studies • Each year data will be collected to assess: extent of student-faculty interaction, availability of faculty, feedback to students, support in terms of TA/IA availability, resources available to students outside of classroom • Each year data are collected in the UC Undergraduate Experience Survey and Post Baccalaureate Survey. Cognitive Science exceeded other majors in how often students “worked on research project under direction of faculty” (17.9% vs 7.1 %). Over 90% of cognitive science undergraduates felt satisfied to very satisfied with faculty instruction, while 84% of students felt somewhat to satisfied with advising by faculty on academic matters (compared to 79% in other majors). Approximately 80% aspired to obtain a Masters or Doctorate degree. 		
	<p>Critical Thinking</p> <p>4. Use critical and creative thinking, skeptical inquiry, and the scientific approach to solve problems related to cognition, brain processes, and computational models of such.</p> <p>7. Have realistic ideas about how to implement their knowledge, skills, and values in occupational pursuits in a variety of settings.</p>	<p>Critical Thinking</p> <p>Critical thinking is promoted in all classes. In hiring faculty and instructors promotion of critical thinking is a key criterion.</p>	<p>Critical Thinking</p> <ul style="list-style-type: none"> • Faculty Undergraduate Advisor along with Undergraduate Coordinator act on all requests/petitions for variation of requirements 	<p>Critical Thinking</p> <ul style="list-style-type: none"> • Internally the department adjusts requirements and course sequences for the major
	<p>All other items not color coded</p> <p>6. Be able to communicate effectively in a variety of formats.</p>	<p>All other items not color coded</p> <ul style="list-style-type: none"> • Outcome (2) is met by successfully completing hands-on Independent Research courses, term papers, study proposals, project-based courses, writing-based courses, group research projects, comparative cognition studies, field observation/studies, patient case studies, Honors Program, Instructional Assistantships, internships, and study abroad program • Outcome (4) is met by successfully completing project-based courses, Independent Research courses, Honors Program, term papers, study proposals, writing-based courses, field studies, patient case studies • Outcome (6) is met by successfully completing group research projects, Honors Program, Independent Research courses, writing-based courses, field studies 	<p>All other items not color coded</p> <ul style="list-style-type: none"> • 5-year ACS Review 	<p>All other items not color coded</p> <ul style="list-style-type: none"> • Individual course instructors use feedback to modify their courses

<p>Department: Cognitive Science</p> <p>Major: Cognitive Science (continued page 3)</p>	<p>(2b) Where are the learning outcomes published? Please provide your department/program website address.</p> <p>Undergraduate Webpage – Resources: http://www.cogsci.ucsd.edu/undergraduate-study/resources/</p> <ul style="list-style-type: none">• Course syllabi• Class websites			
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Academic Program	(2a) What are these learning outcomes? <u>Students graduating with a degree should be able to:</u>	(3) Other than GPA, what data/evidence are used to determine that graduates have achieved stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)?	(4) Who interprets the evidence? What is the process?	(5) How are the findings used?
<p>Department: Psychology/Cognitive Science</p> <p>Major: B.S. in Cognitive and Behavior Neuroscience</p> <p>(1) Have formal learning outcomes been developed? Yes/No Yes</p> <p>(6) Date of the last Academic Senate Review? [i.e. 2015-16 if the review takes place this academic year] N/A due to new major</p> <p>11/29/16</p>	<p>Written Communication</p> <p>Communicate effectively in a variety of formats.</p>	<p>Written Communication</p> <p>Successfully completing hands-on Independent Research courses, term papers, study proposals, project-based courses, writing-based courses, group research projects, comparative cognition studies, field observation/studies, patient case studies, Honors Program, Instructional Assistantships, internships, and/or study/abroad program.</p>	<p>Written Communication</p> <p>The teaching team of the class (instructors and/or teaching assistants) read written work and provide comments.</p>	<p>Written Communication</p> <p>Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also periodic outside review.</p>
	<p>Oral Communication</p> <p>Communicate effectively in a variety of formats.</p>	<p>Oral Communication</p> <p>Most PSYC 199s and COGS 199s and lab classes involve oral presentations of research, as do some other classes.</p>	<p>Oral Communication</p> <p>In classes where presentations occur, instructors and/or teaching assistants evaluate these presentations and provide feedback.</p>	<p>Oral Communication</p> <p>Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also periodic outside review.</p>
	<p>Quantitative Reasoning:</p> <p>Understand and apply basic research including research design, data analysis, and interpretation.</p>	<p>Quantitative Reasoning</p> <p>All students required to complete PSYC 60 (Statistics), COGS 14B or equivalent and PSYC 70 (Research Methods in Psychology) or COGS 14A, or equivalent. Successful completion of these courses entails mastery in this area.</p>	<p>Quantitative Reasoning</p> <p>The teaching team (instructors and/or teaching assistants) through grading exams (which include short-answer/problem-solving).</p>	<p>Quantitative Reasoning</p> <p>Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also periodic outside review.</p>
	<p>Information Literacy</p> <p>Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.</p> <p>Demonstrate information competence and the ability to use computers and other technology for many purposes.</p>	<p>Information Literacy</p> <p>All students must complete PSYC 70 or COGS 14A. These courses provide extensive training in consuming research. Additionally, through writing papers for our courses, including PSYC 70, students must access and evaluate information and use it effectively.</p>	<p>Information Literacy</p> <p>The teaching team (instructors and/or teaching assistants) through grading exams, papers, and in-class assignments.</p>	<p>Information Literacy</p> <p>Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also periodic outside review.</p>
	<p>Critical Thinking</p> <p>Respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.</p> <p>Understand and apply psychological and cognitive science principles to personal, social, and organizational issues.</p> <p>Weigh evidence, tolerate ambiguity, act ethically, and</p>	<p>Critical Thinking</p> <p>Critical thinking is promoted in all classes. Passing grades in individual classes verify the acquisition of critical thinking. In hiring faculty and instructors promotion of critical thinking is a key criterion.</p>	<p>Critical Thinking</p> <p>The teaching team (instructors and/or teaching assistants) through tests, quizzes, papers, projects and discussions.</p>	<p>Critical Thinking</p> <p>Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also</p>

<p>Department: Psychology/Cognitive Science</p>	<p>reflect other values that are the underpinnings of psychology as a discipline.</p>			<p>periodic outside review.</p>
<p>Major: B.S. in Cognitive and Behavior Neuroscience (continued page 2)</p>	<p>All other items not color coded Students will: examine the links between neural activity and perception (e.g., color vision, attention), basic behaviors (e.g., appetitive drives such as hunger and sleep), and higher level cognitive function (e.g., working memory and executive function) using multiple tools ranging from single-unit physiology to functional magnetic resonance imaging (fMRI) and electroencephalography (EEG). demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology. recognize, understand, and respect the complexity of sociocultural and international diversity.</p>	<p>All other items not color coded Core courses and electives provide this information and diversity and related topics are included in many classes in the majors.</p>	<p>All other items not color coded Assessments including exams, quizzes, papers, projects, and presentations determine whether students have met these goals. 5-year ACS Review</p>	<p>All other items not color coded Individual instructors revise courses. For core courses, Undergraduate Affairs Committee and particular faculty members provide additional oversight, revising structure of major as needed. There is also periodic outside review.</p>
<p>11/29/16</p>	<p style="text-align: center;">(2b) Where are the learning outcomes published? Please provide your department/program website address.</p> <p>Undergraduate Webpage – Resources: http://www.cogsci.ucsd.edu/undergraduate-study/resources/ http://psychology.ucsd.edu/undergraduate-program/advising/learning-outcomes.html</p> <ul style="list-style-type: none"> • Course syllabi • Class websites 			