

Computer Science and Psychology

Directors of undergraduate studies: Theodore Kim

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Computer Science and Psychology is an interdepartmental major designed for students interested in integrating work in these two fields. Each area provides tools and theories that can be applied to problems in the other. Examples of this interaction include cognitive science, artificial intelligence, and biological perception.

PREREQUISITE

The prerequisite for the major is PSYC 1100, from which students who have scored 5 on the Advanced Placement test in Psychology are exempt. Beyond the prerequisite, the major requires fourteen term courses as well as a senior project.

REQUIREMENTS OF THE MAJOR

Students are held to the requirements that were in place when they declared their major. However, with approval from the Psychology DUS, the following requirements (specifically the elimination of PSYC 2100 as a requirement), updated for the academic year 2025–2026, may be fulfilled by students who declared the major in a prior term.

See Links to attributes indicating courses approved for Psychology major requirements.

Eight of the fourteen required courses must be in computer science: CPSC 2010, 2020, 2230, 3230, and CPSC 3650 or 3660, and three advanced computer science courses in artificial intelligence (examples of such courses are those in the range CPSC 4700–CPSC 4770, CPSC 4520, 4530, CPSC 4810–4890). CPSC 2800 and 4900 may not be counted as one of these courses. MATH 2440 may substitute for CPSC 2020. Only one of CPSC 3650 and 3660 may be taken for major credit.

The remaining six courses for the psychology requirement include one course in statistics, either S&DS 1000 or S&DS 2300, and at least one course in research methods from PSYC 2100–2990; at least two psychology courses from the social science point of view; and at least two courses from the natural science point of view. At least one of the two psychology courses from both the social science point of view and the natural science point of view must be designated as Core in the course listings. Refer to the Psychology program overview for a listing of courses that fulfill the social science and natural science requirements and a description of courses designated as Core.

With the permission of both directors of undergraduate studies (DUSs), a course in cognitive psychology or cognitive science that is highly relevant to the major and that is not counted as one of the six courses in psychology may substitute for one of the courses in artificial intelligence.

Credit/D/Fail No course in Computer Science taken Credit/D/Fail may be applied toward the requirements of the major; no more than one course in psychology taken Credit/D/Fail may be applied toward the major requirements. No 200-level course in psychology taken Credit/D/Fail may be applied toward the major requirements.

Outside credit Courses taken at another institution or during an approved summer or term-time study abroad program may count toward the major requirements with DUS approval.

SENIOR REQUIREMENT

Students must take either CPSC 4900 or PSYC 4990, and the project must be approved by the DUS in each department.

ADVISING

The entire program of each student majoring in computer science and psychology must be approved by the DUS in each department.

SUMMARY OF MAJOR REQUIREMENTS

Prerequisite PSYC 1100

Number of courses 14 term courses beyond prereq (not incl senior project)

Specific courses required CPSC 2010, 2020, 2230, 3230, and CPSC 3650 or 3660; S&DS 1000 or S&DS 2300

Distribution of courses 3 CPSC advanced AI courses; 6 PSYC courses to include 1 statistics course and at least 1 course from PSYC 2100–2990; at least 2 from social science point of view and 2 from natural science point of view, with 1 designated Core course from each, as specified

Substitution permitted With permission of both DUSs, and as specified: MATH 2440 for CPSC 2020; 1 relevant course in cognitive psychology or cognitive science for 1 course in AI

Senior requirement CPSC 4900 or PSYC 4990, with project approved by DUS in each dept