COMPUTER SCIENCE AND PSYCHOLOGY

Directors of undergraduate studies: Y. Richard Yang (yang.r.yang@yale.edu) (Computer Science); Yarrow Dunham (Psychology)

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 110, 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

Eight of the fourteen required courses must be in computer science: CPSC 201, 202, 223, 323, and CPSC 365 or 366, and three advanced computer science courses in artificial intelligence (examples of such courses are those in the range CPSC 470–CPSC 477, CPSC 452, 453, CPSC 481–489). CPSC 280 and 490 may not be counted as one of these courses. MATH 244 may substitute for CPSC 202. Only one of CPSC 365 and 366 may be taken for major credit.

The remaining six courses must be in psychology, including PSYC 200; at least one from PSYC 210–299; 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. An additional course in psychology and an examination arranged with the instructor of PSYC 200 may substitute for PSYC 200.

Credit/D/Fail No course in computer science taken Credit/D/Fail may be counted toward the major; no more than one course in psychology taken Credit/D/Fail may be counted toward the major. No 200-level course in psychology taken Credit/D/Fail may be counted.

SENIOR REQUIREMENT

Students must take either CPSC 490 or PSYC 499, 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 110

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

Specific courses required CPSC 201, 202, 223, 323, and CPSC 365 or 366; PSYC 200

Distribution of courses 8 courses in CPSC, with 3 advanced AI courses; 6 courses in PSYC, incl PSYC 200; at least 1 additional course from PSYC 210–299; 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 244 for CPSC 202; 1 relevant course in cognitive psychology or cognitive science for 1 course in AI; 1 addtl course in PSYC and exam arranged with instructor for PSYC 200

Senior requirement CPSC 490 or PSYC 499, with project approved by DUS in each dept