

Psychology

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Psychology is the scientific study of the mind, the brain, and human behavior. The Psychology department offers coursework and research opportunities in the fields of clinical, cognitive, developmental, neuroscientific, and social psychology. By studying psychology, students better understand human behavior, including who we are, how we do the things we do, and how we enhance our lives and society. The Psychology major provides a foundation for careers in education and research; law; medicine and public health; politics and public policy; and in business fields such as marketing, finance, and management.

COURSE NUMBERING

Courses in the department are organized so that they are best taken in several parallel sequences. Courses numbered 1100–1900 and ending in a zero are core survey courses that introduce students to major areas of psychology and provide additional background for more advanced courses. These courses represent major content areas of psychology; students should sample broadly from them before specializing. Courses numbered from 2000–2090 focus on statistics. Courses numbered 2100–2990 teach general methodology or data collection in various areas of psychology. Courses numbered from 3000–3990 are more advanced courses in a particular specialization. Senior seminars, whose enrollment is limited to no more than twenty students, are numbered from 4000–4890. These seminars are best taken once a student has the appropriate background. Courses numbered from 4900–4990 are special tutorial courses that require permission of the adviser and the director of undergraduate studies (DUS).

PREREQUISITE

PSYC 1100, a general survey course, is a prerequisite to several 1000-level and all 2000-level and above courses. This prerequisite may alternatively be satisfied by a score of 5 on the Psychology Advanced Placement test or a score of 7 on the IB Psychology exam.

REQUIREMENTS OF THE MAJOR

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

Standard major The standard major in Psychology for both the B.A. degree program and the B.S. degree program requires twelve credits beyond PSYC 1100, including the senior requirement. The difference between the B.A. and the B.S. degree programs is the senior requirement (see below).

1. Because psychology is so diverse a subject, every student is required to take two courses from the social science point of view in psychology and two from the natural science point of view in psychology. Listed below are examples of courses that fulfill these requirements. A complete list of courses, updated each term, may be found on Yale Course Search (YCS) by searching “Any Course Information Attribute.” At least one from each group must be a course designated as Core in the course listings and below. Students are expected to take their two core courses

as early as possible in the major, normally within two terms after declaring their major.

Social science core (YC PSYC Social Science Core): PSYC 1400, 1500, 1700

Social science: Search YCS for courses with the YC PSYC Social Science designation

Natural science core (YC PSYC Natural Science Core): PSYC 1300, 1600

Natural science: Search YCS for courses with the YC PSYC Natural Science designation.

2. Because statistical techniques and the mode of reasoning they employ are fundamental in psychology, a course in statistics is required, preferably prior to the senior year. A student may take S&DS 1000 or 2300 to satisfy this requirement. A student who has a score of 5 on the AP Statistics Exam must take S&DS 2300 or 1230 (YData). If approved in advance by the DUS, a second course in statistics or quantitative methodology that focuses on advanced techniques relevant for research in psychology can be counted towards the major as a PSYC elective.
3. To ensure some direct experience in collecting and analyzing data, students must elect at least one research methods course, preferably before the senior year, in which research is planned and carried out. For students pursuing the BS degree, this course **must** be taken prior to the senior year. Courses numbered between 2100–2990 fulfill this research methods requirement.
4. Students may, with permission of the DUS, count up to three term courses in other related departments toward the major. Appropriate courses are rare and only approved when the course has substantial empirical psychology content. Students should consult with the DUS in Psychology about selecting outside courses and should not assume that a course will count prior to that consultation. Getting this approval in advance is highly recommended.

Students interested in research are encouraged to take an independent study course (PSYC 4925) as early as the sophomore year. Students may also take PSYC 4950 for one-half course credit of independent research per term with prior permission of the faculty adviser and the DUS (this course is often taken twice in sequence). To obtain permission, follow the instructions on the department website to fill out the enrollment survey and then add the class normally, being sure to request instructor permission. This process must be completed at least one week before the end of the add/drop period for a given semester. These independent study courses are graded P/F. No more than a total of three credits from PSYC 4900–4990 combined may count toward the major.

Neuroscience concentration Students with a major interest in neuroscience may wish to elect the neuroscience concentration. Such students are considered Psychology majors for whom the requirements have been modified to accommodate their interests and to reflect the multidisciplinary nature of modern neuroscience and psychology. Given the broad nature of the field of neuroscience, students may wish to concentrate their studies in one area of the field (e.g., behavioral, cellular and molecular, cognitive, affective, social, clinical, or developmental). Interested students are encouraged to contact the concentration adviser, Stephanie Lazzaro (stephanie.lazzaro@yale.edu). Majors in the neuroscience concentration must check in

with the concentration adviser at the beginning of each term in their junior and senior years.

Requirements for the neuroscience concentration are the same as for the standard major, with the additional requirements listed below. A complete list of courses, updated each term, may be found on Yale Course Search (YCS) by searching “Any Course Information Attribute.”

1. Two terms of introductory biology are required for the major, BIOL 1010–BIOL 1040. Students who have scored 5 on the Advanced Placement test in Biology or scored 7 on the IB Biology exam may place out of these courses.
2. Students must take PSYC 1600 and a data-collection course (YC PSYC NSCI Track RsrchMthds) chosen from PSYC 2600, 2538, 2700, 2658 or 2670. PSYC 2690L, 2760, or MCDB 3200 may substitute for the PSYC 1600 requirement, or MCDB 3200 and 3210L may substitute for PSYC 2690L or PSYC 2760, but not both. If MCDB 3200 is substituted for a Psychology course, it cannot be counted as one of the two advanced science courses outside the department (see item 4 below).
3. As required for the standard major, students in the neuroscience concentration must take two social science courses, at least one of which must be designated as Core in the course listings. Students in the neuroscience concentration must also take a course from the natural science list in addition to the courses specified in item 2 above.
4. At least two advanced science courses (YC PSYC NSCI Track Adv Scie) must be chosen from Molecular, Cellular, and Developmental Biology and Ecology and Evolutionary Biology courses numbered 2000 and above that deal with human and/or animal biology; recommended courses include MCDB 2000, 2020, 2050, 2100, 2500, 3000, 3150, 3200, EEB 2220 and 2225. Certain courses outside of these departments may also meet the advanced science requirement, including BENG 3200, BENG 5440, CPSC 4750, MB&B 3000, 3010, 4200, 4350, 4430, 3520, MATH 2220, MATH 2250, and MATH 2410. Other courses may qualify for this requirement with permission of the neuroscience concentration adviser. Laboratory courses do not count toward the advanced science requirement. Students should note that many advanced science courses have prerequisites that must be taken first.

Credit/D/Fail No more than two courses taken Credit/D/Fail may be applied toward the requirements of the major; no 2000-level course, or course taken to satisfy a 2000-level requirement (the statistics or research methods requirement), can be taken Credit/D/Fail and then applied toward the major.

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

Standard major Majors are required to earn two course credits from courses numbered PSYC 4000–4990. At least one of these courses (excluding PSYC 4925 and PSYC 4950, which can only be taken P/F) must be taken during the senior year, for which a student must write a substantial final paper (a minimum of 5,000 words) and receive a letter grade. The B.A. degree is typically awarded to students who conduct a nonempirical literature review during senior year. There are no restrictions in the research format

for the B.A. The B.S. degree is awarded to students who conduct empirical research through PSYC 4990 during senior year. An empirical research project normally includes designing an experiment and collecting and analyzing the data. Students pursuing the B.S. degree will want to identify a faculty advisor well in advance of the semester in which they intend to complete their senior essay, and they may want to seek research experiences with that faculty member prior to the senior year.

Neuroscience concentration The senior requirement for the neuroscience concentration is the same as for the standard major, except that the two required course credits from PSYC 4000–4990 must have neuroscience content (YC PSYC NSCI Track Senior Sem designation). Students pursuing the B.S. degree in the concentration must carry out a neuroscientific empirical project in PSYC 4990 and must be supervised by a faculty member within the neuroscience area of the Psychology department. Students who wish to work with an affiliated faculty member studying neuroscience outside the department must obtain permission from the neuroscience concentration adviser. Students pursuing the B.S. degree will want to identify a faculty advisor well in advance of the semester in which they intend to complete their senior essay, and they may want to seek research experiences with that faculty member before the senior year.

Distinction in the Major To be considered for Distinction in the Major, students must submit a senior essay to the Psychology department at least one week before the last day of classes in the term when the course used for the senior essay is taken. Senior essays that are submitted after the deadline will be subject to grade penalties. Senior essays considered for Distinction in the Major are graded by a second reader and the essay adviser. Senior essays must be submitted to the department by the deadline.

ADVISING

Schedules for all majors must be discussed with, and approved by, the DUS or the adviser for the neuroscience concentration in Psychology. For questions concerning credits for courses taken at other institutions or at Yale but outside the Department of Psychology, students should consult with the DUS. For questions concerning the neuroscience concentration, students should consult with the adviser for the neuroscience concentration in Psychology.

Computer Science and Psychology major The interdepartmental major in Computer Science and Psychology may be considered by students with interests lying squarely between the two disciplines. See Computer Science and Psychology for more information.

SUMMARY OF MAJOR REQUIREMENTS

STANDARD MAJOR

Prerequisite PSYC 1100

Number of courses 12 courses beyond prereq (incl senior req)

Specific course required S&DS 1000 or S&DS 2300

Distribution of courses B.A. or B.S.—2 social science courses and 2 natural science courses, as specified; 1 course numbered PSYC 2100–2990

Senior requirement *B.A.* – 1 course credit from PSYC 4000–4890 or 4990 taken during senior year; 1 additional course credit from PSYC 4000–4990; *B.S.* – PSYC 4990 taken during senior year; 1 additional course credit from PSYC 4000–4990

NEUROSCIENCE CONCENTRATION

Prerequisite PSYC 1100

Number of courses 12 courses beyond prereq (incl senior req); same as for the standard major with the additional requirements listed below

Specific courses required BIOL 1010–BIOL 1040 unless students place out; PSYC 1600; PSYC 2600, 2538, 2700, 2658 or 2670

Distribution of courses *B.A.* or *B.S.* – 2 social science courses and 1 natural science course, as specified; at least 2 advanced science courses, as specified

Substitution permitted MCDB 3200 or PSYC 2690L or PSYC 2760 may substitute for PSYC 1600; or MCDB 3200 and 3210L may substitute for PSYC 2690L or PSYC 2760; S&DS 1030 or exam arranged with instructor for PSYC 2100

Senior requirement *B.A.* – 1 course credit from PSYC 4000–4890 or 4990 with neuroscience content taken during senior year; 1 additional course credit from PSYC 4000–4990 with neuroscience content; *B.S.* – PSYC 4990 taken during senior year, with neuroscience content in a research project; 1 additional course credit from PSYC 4000–4990 with neuroscience content

FACULTY OF THE DEPARTMENT OF PSYCHOLOGY

Professors Woo-kyoung Ahn, John Bargh, Tyrone Cannon, B. J. Casey, Marvin Chun, Margaret Clark, Melissa Ferguson, Jutta Joormann, Frank Keil, Joshua Knobe, Gregory McCarthy, Jennifer Richeson, Peter Salovey, Laurie Santos, Brian Scholl, Nick Turk-Browne

Associate Professors Arielle Baskin-Sommers, Steve Wohn Chang, Molly Crockett, Yarrow Dunham, Avram Holmes

Assistant Professors Dylan Gee, Maria Gendron, Julian Jara-Ettinger, Julia Leonard, Sam McDougle, Robb Rutledge, Ilker Yildirim

Lecturers Jennifer Hirsch, Stephanie Lazzaro, Kristi Lockhart, Mary O'Brien, Matthias Siemer