

PHYSICS AND PHILOSOPHY

Directors of undergraduate studies: David Poland (david.poland@yale.edu) (Physics), Daniel Greco (daniel.greco@yale.edu) (Philosophy)

PREREQUISITES

Prospective majors in Physics and Philosophy are advised to begin taking the prerequisites during their first year, and to take at least two of the required philosophy courses by the end of their sophomore year. Prerequisites for this major are as follows: mathematics through calculus at the level of MATH 1200; any introductory physics lecture sequence PHYS 1700, 1710 or higher; PHYS 1650L and 1660L, or PHYS 2050L.

REQUIREMENTS OF THE MAJOR

Students are held to the requirements that were in place when they declared their major. However, with approval from the DUS, the following requirements, updated for the academic year 2025-2026, may be fulfilled by students who declared the major in a prior term.

Beyond the prerequisites, students take fifteen courses for fourteen and a half course credits, including the senior requirement. The laboratory course PHYS 2060L and seven advanced courses in physics approved by the director of undergraduate studies (DUS) numbered 3000 or higher are required, including PHYS 4000 or equivalent, and either PHYS 4390 or 4400. Six courses in Philosophy or in History of Science, Medicine, and Public Health are required, including PHIL 1125 and PHIL 1126, one course in logic above the introductory level, and a philosophy seminar selected with the approval of the DUSs.

Credit/D/Fail At most, one course taken Credit/D/Fail may be applied toward the major, with permission of the DUSs. Physics courses must be taken for a letter grade to count towards the major, including prerequisites.

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

B.S. degree program Seniors must complete PHYS 4710 and/or 4720, only one of which may count toward the eight required physics courses.

B.A. degree program Seniors must complete one of the following: (1) PHIL 4490 or PHIL 4491 (senior essay); (2) PHIL 4480 (tutorial) on an appropriate subject; (3) an appropriate philosophy seminar with the approval of the DUS in Philosophy.

SUMMARY OF MAJOR REQUIREMENTS

Prerequisites MATH 1200; PHYS 1700, 1710, or higher; PHYS 1650L and 1660L, or PHYS 2050L

Number of courses 15 courses for 14.5 course credits beyond prereqs, incl senior req

Specific courses required PHYS 2060L; PHYS 4000 or equivalent; PHYS 4390 or 4400; PHIL 1125, PHIL 1126

Distribution of courses 5 addtl physics courses numbered 3000 or higher approved by DUS; 4 addtl courses in PHIL or HSHM, incl 1 in logic above intro level and a PHIL sem, as specified

Senior requirement *B.S.* – PHYS 4710 and/or 4720 (only one of which may count toward the 8 required physics courses); *B.A.* – PHIL 4490 or PHIL 4491, PHIL 4480 on appropriate topic, or approved PHIL sem