

Physics General Examination (“Preliminary Exam”)

(rules for students entering before 2015)

The Graduate School’s “General Examination” is usually referred to in the Physics Department as the “Preliminary Exam” (or “prelims” for short). As part of the PhD degree in Physics at UConn every student is required to pass the Preliminary Examinations. For students entering before 2015, the rules are as follows. (Students who entered in 2015 or after, see the other set of rules.)

1. These exams are intended to test the student on a broad foundation of core physics knowledge. There are four written prelims given on separate days:
 - Electrodynamics (at the level of PHYS 5301)
 - Mechanics (at the level of PHYS 5201)
 - Quantum Mechanics (at the level of PHYS 5401 and 5402)
 - Statistical Mechanics (at the level of PHYS 5500)
2. The Preliminary Examination Committee (“prelim committee”) prepares and grades the written exams, and reports the grades to the Faculty in a special prelim faculty meeting for ratification.
3. All four exams are given twice a year, as soon as is feasible before the beginning of each semester. The Quantum Mechanics exam will be 4 hours in duration; the other exams will be 3 hours.
4. A student is required to pass all four written exams prior to the beginning of their sixth semester in the PhD program. A student is strongly encouraged to take the exams as soon as is consistent with their background in the material covered. There is to be no penalty if a student fails an exam in an early attempt.
5. After having passed the written prelims, the student is admitted to the oral examination (“oral prelim”). It should be taken as soon as possible during the semester immediately following the time the student passes the written exams. An Oral Examination Committee consisting of the student’s Advisory Committee and two other faculty members approved by the Chair of the prelim committee conducts the oral. In the oral the student makes a brief presentation of approximately 20 minutes on an application of physics in contemporary science, engineering or technology, followed by an oral examination of basic physics concepts and contextual questions related to the student’s presentation. The student should discuss the topic of the oral in advance with his/her Major Advisor.
6. A student who has not passed all the written exams after exhausting the allowed attempts cannot be admitted to the oral by vote of the prelim faculty meeting. At the request of the student or his/her major advisor, his/her case is referred to a separate Appeals Committee appointed by the Head of the Department. The appeals committee must have no overlap with the student’s advisory committee or the last prelim committee that graded the student’s work. This committee will study the case and make a recommendation to the entire faculty

for a vote at a later date. On this occasion the core documents related to the appeal such as the appeal letter and the transcript and prelim history of the student must be made available to the entire faculty.

At the request of the prelim committee, the Major Advisor of a part-time student must submit an appeal as above if an extension of the time limits is needed. Such an appeal does not in itself indicate unsatisfactory performance by the student.

7. Preparation: Students are encouraged to study copies of past prelim exams on file in the Physics Department main office. These past exams are also available online.