

Physics PhD Program: Topical Oral Exam

(Corbin Covault, Graduate Program Director, 2012)

Within one year of formal association with a research advisor each student will arrange and schedule to have an oral examination on her/his research progress with a preliminary dissertation committee. The "topical oral committee" will be made from at least three members of the faculty of the department of physics and will include the student's dissertation research advisor/supervisor. If the student is being supervised by faculty member who is not a member of the department, then that research supervisor and the student's designated physics department co-supervisor should both attend the oral exam and serve on the committee. There are no other requirements or constraints on the membership of the committee. The exam must be held on campus and the student and all members of the committee must be physically present. The presentation is not public forum, but specific observers may be present for the presentation only at the explicit invitation of the student with the concurrence of the student's research advisor.

The examination will consist of a not-more-than-30-minute presentation by the candidate relating to the literature and scientific background for the thesis topic, a proposed direction and plan for the work, and a progress report of work completed thus far.

After the presentation is complete, the student will then respond to any questions from members of the committee regarding the depth of understanding of the materials, details of the research plan, and any other issue relevant for determining the prospects that the student will successfully complete the dissertation. Although the members of the committee are free to ask any question, the focus of the inquiry should be to determine whether or not the student is prepared for PhD research and has a clear and plausible plan to complete the work with good results within a reasonable time.

After listening to the presentation and after completing the questioning of the candidate, the committee will consult in private, to discuss and develop a consensus decision on the result of the exam. The committee can report out one of three possible exam results:

- (1) Passing.
- (2) Passing with conditions.
- (3) Not passing.

The committee will report a result of "Passing" if they conclude the student is well-prepared for PhD research, is making good progress, and has a plan that appears to be on the path to a successful dissertation. In this case, members of the committee are encouraged to relay feedback and any comments or recommendations to the student and research advisor(s).

The committee will report a result of "Passing with conditions" if the student seems generally prepared and has a plan but in the case that there may be one or two important concerns that could in principle pose a significant threat to the success. In this case, the committee will document a list of these concerns and these will be presented to the student. The student in consultation with the advisor will generate a formal response to these concerns in writing to the members of the committee and to the graduate program director. The goal of the student's written response will be to address the concerns and to demonstrate a plan to address these. Students must complete and submit an acceptable formal response to the committee within one month of exam in order to retain their Passing result. Student who are unable to generate an acceptable formal response to the committee within one month will be considering "Not Passing" and will need to make a new attempt at the exam.

The committee will report a result of "Not passing" if they conclude that there are serious deficiencies or other issues that significantly reduce the likelihood that the candidate will successfully complete the dissertation in a timely manner. The committee will be asked to briefly document the main concerns, which will be reported to the student and the director of the graduate program. The student will then be required to arrange for a new attempt at the oral topical exam with the same committee at a later date. Students will generally not be permitted to attempt the exam more than twice. Students who are unable to earn a passing result after two attempt will not be considered in good academic standing with the physics department and may be asked to leave the PhD program.

The decision of the committee will be documented on a "Physics Department Topical Oral Exam Form" which can be obtained from the department office. The members of the committee will sign the form and submit this form to the graduate program director. A hard copy of the form along with a printed hard-copy of the students' exam presentation will also be delivered to the department office so as to be included in the student's file.

Note added 2013: It is the unfortunate recent history of the department that many/most graduate students do not manage to schedule their

Topical Oral Exam within one year of their candidacy. Faculty and students are both urged to arrange for this exam as soon as practical, since the goals and benefits of the exam are most effectively realized if the student take the exam early in the dissertation work.

However for all students, there is no mechanism for waiving the Topical Oral Exam. Advanced students who have postponed their Topical Oral Exam will be required to complete and pass their Topic Oral before any plans for a dissertation defense can be considered.

In other words, there is no way to avoid the Topical Oral, so it's a good idea to make it happen as early as possible.