Student's Guide to the Physics PhD Oral Examination

1. Review the UMaine Physics PhD Examination Requirements Document section titled "Oral Candidacy Exam" for information on (1) the timing for scheduling and taking the oral exam, (2) the composition of the Oral Examination Committee, (3) the thesis proposal portion of the exam, and (4) the "closed-door oral questioning" of the student. The present document provides more specifics about expectations of student performance in items (3) and (4).

2. You will need to identify five high-quality papers relevant to the thesis topic area, and provide these papers to the testing committee at least 3 weeks in advance of the oral exam date. You are required to closely consult with your thesis advisor in the choice of the papers.

3. Prepare a written research proposal for your thesis project. The format should follow that of a National Science Foundation (NSF) or National Institutes of Health (NIH) research grant proposal, unless an alternative format has been approved by your Graduate Thesis Committee. (Explicit guidelines for the NSF and NIH proposal styles, adapted for this purpose, have been prepared and can be obtained from the department website.) The written proposal must be provided to each of the four members of Oral Examination Committee at least two weeks prior to the Oral Examination date.

4. Prepare a quality presentation of your plan for your thesis project, including appropriate components of its theoretical and experimental background. You will have 30 minutes to make your presentation at the level of an audience at a national meeting (graduate, post-graduate, faculty). There will then follow a 20-minute question and answer period directly related to your presentation material.

5. The last 50-minute portion of the exam will then take place with only you, the four members of the Oral Examination Committee, and other members of your Graduate Thesis Committee [if desired] remaining in the room. The Oral Examination Committee members will be expected to ask probing questions closely related to the thesis plan/background, as well as more fundamental, conceptual questions in areas of physics relevant to the thesis. The process of answering questions is expected at times to need some prompting from the questioner, since time is quite limited and it will be important for many questions to be addressed. Only the four members of the Oral Examination Committee will have a vote on whether a student passes the overall (thesis proposal and closed-door questioning) examination or not.