

School of Physics: guidelines for postgraduate (PhD/MPhil/MRes) students preparing for their Annual Progress Reviews

The Annual Progress Review meeting is an opportunity for students, their supervisors, and the School to review all aspects of your candidature, develop a plan of action for the next year, and to provide an independent and objective view of your progress.

For the official GRS guidelines on Annual Progress Reviews, please read the following document:

http://research.unsw.edu.au/sites/all/files/related_files/regular_page_content/AnnualProgressReviewandConfirmationofCandidature.pdf

You will be informed in advance of the members of the Review Panel, normally consisting of two senior members of academic staff, neither of whom will be your supervisor or co-supervisor. If you have any objections to the make-up of the Panel, or if there is someone that you would specifically like to be on (or off) the Panel, please speak with the Postgraduate Coordinator (preferably) or the Head of School or your supervisor as soon as possible.

Note that the first annual review for a **PhD student** is also the “confirmation review”, and must be passed for your candidature to be confirmed. The confirmation review normally occurs within 12 months of starting your PhD for a full-time candidate, and within 24 months for part-time. The process is described later in this document.

If you have any major concerns with your progress, research topic, supervision, etc, it would be helpful to contact the Chair of the Panel *before your annual review meeting* for a confidential discussion.

If you are scheduled for a review, you should have received an email from GRS with details of how to access the electronic review form. **You and your supervisor must complete this electronic form before your scheduled review meeting. If this is not done, the meeting will be cancelled, and rescheduled for a later date.**

For a description of the review process, see the “guidelines for academic staff” linked from here: <http://www.phys.unsw.edu.au/~mcba/pg.html>

At the end of the review, the Panel will discuss the outcome with you, and the electronic form will be completed and returned to you with the panel's comments. You should then acknowledge on-line that you have read the comments.

Additional information for confirmation of candidature of PhD students

The following information **only** applies to PhD students who have completed the equivalent of at least 9 months of full time study, and who have not had their candidature previously confirmed.

The annual review will also confirm your candidature for the PhD. The purpose of this is to give you confidence that your proposed thesis project is suitable for a PhD, and that your progress to date is on-track to lead to a successful conclusion.

The Review Panel will consist of two to three members of academic staff. Your supervisor will be present during your oral presentation and some of the discussion, but will not be part of the panel.

The written research proposal

To prepare for the confirmation, you need to produce a **written research proposal**, which you must send in advance to the Chair of the Panel, and which includes the following information:

- the key objectives/criteria and milestones of the research, and
- a literature review, and
- a justification of the research, and
- an assessment of the resources required to support the research (e.g., access to telescope time, beam time, databases, expensive consumables, devices that are difficult to manufacture, supercomputer time, equipment that is oversubscribed, or may break down, or doesn't yet exist, etc), and
- a statement of how the research will be conducted in accordance with the UNSW policies for intellectual property, health and safety and ethics.

The proposal should begin with a very clear statement of what the research is about, using language and concepts that any member of academic staff in the School of Physics should be able to understand. Make the statement exceedingly clear and simple. Don't assume that the reader is an expert in your field. It should be crystal clear to the reader the general thrust of your thesis topic, and whether your thesis is experimental or theoretical.

The literature review is a summary of the state of the research field, directly relevant to your topic. It often takes the form of an historical introduction, starting from the earliest research papers in the field, and leading to the most recent results. You should refer to the original papers, not to reviews by more recent authors (although such reviews can be very helpful for your understanding). You should have a comprehensive list of references, and use the appropriate referencing format from the top journals in your field. The references normally cover several decades in time, with a good number of recent papers.

The Panel will need to understand whether your topic is in an area of very active research (in which case, are you fully up-to-speed with the latest developments?), or is it in a quiet backwater (in which case, why isn't anyone else interested?)

The purpose of the literature review is to demonstrate to the committee that (1) you can write, (2) you understand how your research relates to the current state of knowledge, and (3) that your topic will result in new and interesting science. It is obviously important that you demonstrate that your proposed research hasn't already been done by someone else. In some cases the literature review may include unpublished results that you may be aware of.

In general, pages and pages of mathematics is not appropriate for the literature review. If you need

to include a significant fraction of mathematics, you must explain why. E.g., are you reproducing an important result from the literature? are you deriving something new? Every section of mathematics should be clearly introduced with an English description explaining its relevance, and followed by an English summary.

For a guide to the depth and standard that is required for a literature review, you should examine at least a few recent PhD theses in your field.

It is up to you to decide how much to write in your research proposal and how to address the issues of objectives/criteria/milestones, how to justify the research, and how to assess the required resources. Feel free to seek advice for your supervisor. As a *very rough* guide, your overall research proposal might consist of 15 pages with a similar amount of text to the document you are reading now, with perhaps 10 of these pages being the literature review.

The oral presentation

At the beginning of the confirmation review you will be asked to give a ~15 minute oral presentation on your research. Your supervisor will be present during this part of the Annual Review.

The oral presentation should be given roughly at the level of a *Scientific American* article, i.e., it should not require specialised knowledge (beyond that which any member of academic staff in Physics would be expected to have). Your presentation should basically be a summary of your research proposal, with emphasis on clarity and conciseness. **Don't try to impress the Panel by bamboozling them with mathematics or arcane science.**

To aid your presentation, we recommend using PowerPoint slides or similar. You can bring a laptop or USB flash drive containing your presentation. Printed handouts can also be used.

The Review Panel is well aware that giving a talk on a specialised topic after only one year of study can be a stressful process. The Panel will not expect you to be an expert. You should not be embarrassed to admit gaps in your knowledge. Keep in mind that the purpose of the Review is to assist you in obtaining your PhD, and the Panel will be trying to help.

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