

PhD level research includes the independent development of research questions, planning and conducting of the work to answer the posed question, and communicating the results and implications of this research in oral (presentations, thesis defense) and written (thesis, manuscript for peer-review) form. Research conducted for a PhD is original and novel and significantly contributes to the field of science.

The following lists expectations for **PhD** graduates within GPMSL

- By the end of the first year, the graduate student has formed a solid research plan (3-5 page proposal) and an advisory committee
- The student has annual committee meetings where the research plan is reviewed and if necessary, revised. A revision of the research plan is outlined in the annual committee report and a revised proposal is attached to the annual paperwork
- Students are expected to take their comprehensive exams within the first 3 years of their graduate studies
- Students are expected to present their research plan (=proposal presentation) to the faculty, students and staff within their second year through a public seminar (e.g., SFOS seminar)
- Students are expected to give at least one additional public presentation within the School during their tenure to present preliminary results of their work (ideally, mid-way through their studies, separate from proposal presentation and final defense)
- Students are expected to present their work at least at one statewide or national conference during their tenure
- Students are expected to have at least one manuscript submitted to a peer-reviewed journal before they defend their thesis/graduate
- We encourage PhD students to participate in outreach and teaching activities as the professional development of these skills may be very important in future careers