Annual PhD Student Committee Meeting Guidelines

The goal of the annual committee meeting is for students to present their progress toward publication of their thesis research and graduation and for students to receive substantive and actionable feedback from committee members on student progress toward doctoral program goals and milestones. The committee should be viewed as a resource to help the student navigate the path to graduation. These annual meetings are especially important if research progress is slow or if there are concerns about the academic performance of the student. Similarly, these committee meetings are an important opportunity for the student to seek guidance regarding mentorship concerns with the thesis advisor. The Biological Sciences PhD program expects faculty serving on thesis committee meetings by providing substantive and thoughtful feedback. These annual meetings should be 1.5 hours in length to provide time for active discussion and feedback and should take place in-person. The committee chair and evaluation head should budget <u>at least</u> 10 minutes of discussion time at the end of the meeting, without the student present, to carefully complete the attached report. The completed form will provide useful written feedback to the student and the PhD program.

Committee Composition:

Four members (five if jointly advised). Refer to the graduate <u>handbook</u> on committee composition requirements. The chair of the committee is the Thesis Advisor (or co-chairs if jointly advised by two faculty members). Further, the student and advisor should select an Evaluation Head of the committee who will serve as the moderator for all committee meetings and complete the attached evaluation form. It is the student's responsibility to communicate the choice of Evaluation Head prior to the committee meeting.

Goals and student expectations:

The annual committee meetings will focus on progress toward thesis publication and graduation, with a large focus on what has been accomplished and the feasibility of the proposed remaining research. The annual committee will include both a written report and an oral presentation that will be evaluated based on the following questions.

- Does the student have a deep working knowledge of the field in which they are working? Are their current results framed in an appropriate way to be impactful relative to gaps in knowledge in the field?
- Is the student making sufficient overall research progress toward the goal of making an
 original contribution to the chosen research field (e.g. publishing a first author research
 paper) before the end of their 5th year in the graduate program?
- Are the proposed experiments and proposed timeline to publication and graduation feasible? Has the student considered potential problems and provided alternative approaches to offset these risks?

Students are expected to have developed appropriate communication skills to explain their research question(s) and progress clearly and succinctly, in writing and verbally. Students are expected to demonstrate to the committee the ability to:

- Clearly communicate the rationale for the chosen research question(s)
- Clearly articulate progress they have made on their thesis research.
- Think critically about their own data and data in the literature
- Explain how their research addresses critical gaps in the current literature
- Develop original and creative approaches to their remaining research questions

- Identify strengths and weaknesses in the techniques in their research strategy
- Propose a research plan that is feasible within the timetable of a PhD thesis
- Anticipate potential difficulties and propose alternative approaches
- Define successful research outcomes
- Demonstrate a plan to ensure rigor and reproducibility within the research plan

A specific rubric assessing these expectations is found on the evaluation form below.

Written committee meeting report guidelines.

The student must submit a written annual progress report to all committee members (electronically) **one week prior to the committee meeting.** The evaluation head should be clearly indicated in the email containing the written progress report.

The written annual progress report should not exceed 10 pages (references excluded from this limit) and be comprised of the following sections.

Specific Aims Page – 1 page

Background and Significance – 1-2 pages

Progress report for each aim following these guidelines. 2-3 pages for each aim.

Aim X:

Rationale.

Briefly restate the significance of the research question for this aim. Why is the research question interesting? What key previous results in the lab or in the literature form the basis for the hypothesis or research approach?

Research approach.

Justify chosen research approaches. Why is this the best method/approach to answer this research question?

Research progress toward aim completion.

What has been done and what is the contribution of new knowledge to the chosen research field? Include key figures as needed. If the aim has not been started, state the expected results.

Potential pitfalls that may limit, or are currently limiting, research progress. What if the approach doesn't work or yield interpretable data? Have there been unexpected problems with the chosen research approach?

Alternative Approaches.

This section should contain a discussion of alternative approaches to overcome potential or ongoing research barriers.

Please also include a timeline for achieving research goals, including a timeline for publication(s) and graduation. Further, a slide that discusses future career plans should be included at the end of the presentation.

Students may alternatively elect to send a mature draft of a manuscript they are preparing in lieu of the written committee report format detailed above.

Oral presentation guidelines:

The student should present the research background, significance, and progress using a similar structure as the written report. The student should prepare meeting materials that, when presented uninterrupted, do not exceed 45 minutes in length. Slides that lay out the research and graduation timelines should be included at the end of the presentation. Keep in mind the stated evaluation criteria listed above when constructing the written report and oral presentation. In particular, framing results in the context of an eventual publication, including potential title, abstract, figure layout, etc, is recommended. Committee members will evaluate research progress toward stated milestones based on the presented results and interpretation of those results.

The student will be asked to leave the room prior to the commencement of the oral presentation. During this time the committee will have a discussion with the Thesis Advisor to evaluate overall student progress, research strengths and weaknesses, and any potential concerns. The Thesis Advisor will similarly be asked to leave the room either at the beginning or end of the meeting to allow time for the student to discuss any issues regarding the Thesis Advisor with committee members. If the student articulates substantial concerns regarding the Thesis Advisor that cannot be adequately addressed in the context of the committee meeting, the Evaluation Head should contact the Chair or Vice Chair of the Graduate Committee to discuss the issues and establish an action plan.

Following the student's presentation, the student will again be asked to leave the room while the committee discusses the quality of the student's oral and written presentation and the overall research progress. Once the student rejoins the meeting, the Evaluation Head will summarize the discussion and provide feedback to the student based on the attached evaluation form. Other committee members are encouraged to provide feedback as well and the student should be afforded the opportunity to ask questions regarding committee feedback.

The committee chair and evaluation head should budget <u>at least</u> 10 minutes of discussion time at the end of the meeting, after the student has left, to carefully complete the attached report. The completed form will provide useful written feedback to the student and the PhD program. The PhD program expects faculty who serve on PhD thesis committees to provide substantive and thoughtful feedback as part of their instructional obligations.

Annual Doctoral Student Progress Report

Please complete this form during committee discussion. The expectation is that the form will be complete when the committee meeting is adjourned.

Student: Year of student matriculation in doctoral program: Thesis Advisor: Evaluation Head: Other Committee Members: Date of Committee Meeting:

Evaluation Scale relative to expectations for 2nd year students:

1 - Outstanding: Exceeds expectations with some minor issues or flaws. This should be regarded as not a usual outcome and should be reserved for students judged to be in the top 10% of the indicated category.

2 – Meets expectations: Met expectations with some notable but not concerning issues or flaws. This should be regarded as the expected outcome for most students.

3 - Requires Attention: Did not meet expectations with substantial issues or flaws. This is not an uncommon outcome and should be viewed as an area of growth for student professional development.

4 – Problematic: Major flaws or issues noted. This outcome should be rare and reserved students with substantial concerns regarding academic progress. Students receiving problematic evaluations should be considered for academic notice.

1) Did the student submit their written annual committee meeting report at least one week prior to the committee meeting?

Yes No

2) The quality of the written annual committee meeting report was:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

3) The quality of the oral presentation was:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

4) The student's knowledge of the scientific literature relevant to the research project is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

5) The student's ability to critically evaluate and interpret both their own and previously published results is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

6) The student's initiative and independence toward study design and project directions is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

7) The student's progress toward publication of a manuscript or thesis chapter on their work is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

8) The student's ability to describe their results in the context of current gaps in the literature is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

9) Feasibility of the proposed experiments and timeline to publication and graduation is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

10) Overall student progress since the previous committee meeting is:

Outstanding (1), Meets expectations (2), Requires Attention (3), Problematic (4)

11) Is the Committee in agreement with the student's research priorities and research timelines for the next 12 months as stated in the student's written report and oral presentation?

Yes No

If not, please explain briefly below:

12) Provide a summary on the committee's overall evaluation of student academic progress. What are the major research goals for the next year?

13) When does the committee expect this student might graduate based on current progress and plans?

14) Please provide an action plan to address specific areas of training that can be improved. This section should be completed for all students, even those that exceed expectations. If the committee feels that certain minimal goals must be achieved in order for the student to remain in good standing in the graduate program, please specify these here. The committee should revisit this action plan the following year to see if progress has been made.

15) Are there substantial concerns about the student's academic progress and should the student be placed on academic notice?

Yes No

Program probation would involve developing a detailed progress improvement plan with welldefined milestones and timelines. Probationary status would be communicated with the Chair of the Graduate Committee who would help facilitate development and implementation of the progress improvement plan. This would also require scheduling a future committee meeting no more than 6 months from the date of current committee meeting.

Signed by Evaluation Head Signed by Thesis Advisor Signed by Student