

THE GENETICS GRADUATE PROGRAM

I would like to bring you up to date on the changes to the Genetics program based on the discussion with the students, the advice from the steering committee and the discussion during faculty meeting.

1. Reduce the number of required **graded classes to 5**. (allows all the students to finish graded course in first year and get immersed into research sooner) Journal club and RIP are considered important part of the student education to broaden their knowledge throughout their PhD as Genetic Students
2. Students will take the **qualifying exam in the fall of their second year** and hold a **1st committee meeting in the following spring**. (allows the student to get immersed into their research and get feedback on their thesis sooner)
3. **Admittance to candidacy recommended by the 1st committee meeting in the spring of the 2nd year, and then voted in June faculty meeting to provide admittance to candidacy**. The committee meeting proposal corrected with the suggestions of the committee will serve as the student's prospectus. This decision can be deferred to the end of the 3rd year based on the students performance. In that case, students will be given a written notification by the DGS, highlighting the aspects that need to be corrected.
4. **Evaluation forms** will be completed at the end of the qualifying exam and thesis committee meetings to be submitted to the DGS.
 - Admittance to candidacy or green light for thesis defense requires that None of the eight questions in the form are an issue of concern.
5. Before the green light is provided to write their thesis, it is expected that the research done by the student during their PhD is in press or published in at least one peer reviewed paper, with the students as leading author. (this rule was already in place)
6. **At the May and June faculty meeting, faculty will discuss the progress of all students (1st year in May) (2-7 years in June) (If the need raises there might be a discussion of individual cases during other faculty meetings)**. This discussion intends to encourage faculty members to make an investment in every student's progress, thereby increasing familiarity and cohesiveness in the department. This will be an opportunity for faculty to review students that are ready to graduate, progressing favorably through their PhD and address any serious problems in the progress of individual students towards a PhD. Based on this discussion, each student will receive a letter communicating them of the results of the discussion. In some cases students may receive a letter making them aware of any serious issues under consideration, the concrete actions that need to be taken to solve those problems and a clear time line for the student to improve. Following the discussion, faculty will vote whether or not to retain the students in the program. For 2-7 year students, typically, only students who have received a letter making them aware of any serious issues that needed to be solved previously communicated by the DGS, will be in the position of being excused from the program if those issues were not solved in the time line provided. Furthermore, this discussion will encourage all faculty members to make an investment in every student's progress.

Criteria:

- First years, honors requirement and rotation performance. It is important to provide accurate feedback in the rotation. When the mentor is not a primary or secondary genetics faculty there will be a special attention paid to whether the research program of the hosting lab is suitable to the student, or whether another program would be more suitable.

- 2nd year: qualifying exam, 1st thesis committee meeting and mentor evaluation of the student performance and commitment to their PhD from the faculty.

- 3-7 year: thesis committee meeting and report from faculty

QUALIFYING EXAM:

1. A student must take the Qualifying Exam in the fall of their second year (this is a transitional year for this new rule and not all students will meet this deadline)
2. The qualifying exam should last approximately 2 hours with one hour focusing on the thesis proposal and the second hour focusing on the antithesis proposal.
3. Student must bring the Qualifying Exam Evaluation form with them to the exam and it must be completed by the committee at the conclusion of the exam.
4. There are four possible outcomes-
 - a. PASS (evaluation by the committee of the student in the 7 questions below must be fair or above)
 - b. CONDITIONAL PASS- student needs to correct minor deficiencies such as writing a paper on a specific topic.
 - c. DECISION DEFERRED- student has major deficiencies and the committee will require a re-take of the qualifying exam at a date specified by the committee (~6 months after the initial exam). (Decision deferred will occur when the answers to two or more of the questions below is considered to be unacceptable or marginal). When retaking the exam, the mentor will provide the committee with a letter outlining the scientific progress, work ethic and aptitude of the student towards lab work and scientific research. If the major deficiencies are not corrected, the decision of the qualifying re-exam will be a “FAIL”.
 - d. FAIL – There are major deficiencies in the work, knowledge or aptitude of the student towards obtaining a PhD. The committee feels that additional time will not make a significant difference in the outcome of the exam. (Fail will occur when the answers to two or more of the questions below is considered to be unacceptable)
 1. **Presentation style and clarity of written proposal**
 2. **Quality and clarity of oral presentation**
 3. **Scientific merit of proposed research, importance of problem, novelty, probability of success:**
 4. **Thinking deeply/critically about research project, seeing the “big picture”**
 5. **Understanding of relevant techniques/approaches; underlying mechanisms, strengths and limitations:**
 6. **Anticipating potential technical problems and other reasons why the project might not work:**
 7. **Knowledge of the scientific literature in the topic areas**
5. The student must bring the completed Qualifying Exam evaluation form to the DGS for his review and signature during the office open hours (communicated by Debbie to the students). This will allow the DGS to meet all the students, follow their progress and address any immediate concerns.
6. Students will be evaluated during the May and June faculty meetings as described above

THESIS COMMITTEE MEETINGS:

1. The thesis committee must meet for the first time by the spring (May 15th) following the student's Qualifying Exam which would be their 4th semester. (before the end of their 2nd year)
2. The chairman of the thesis committee cannot be the student's advisor.

3. At the beginning of the meeting, the student is asked to leave. Once the student is called back the meeting then proceeds with the student presenting his/her research and progress. At the conclusion of the meeting, the advisor is then excused from the room, so the student can voice any concerns regarding about the project, mentorship or interaction with the mentor. Having the chair be a genetics faculty different from the mentor provides a person who can lead a discussion with the committee members and student. The mentor is then invited back and the student is asked to leave again and the chairman consulting with the advisor and the committee complete the evaluation form. The student is invited back in to discuss the evaluation form, performance and expectations.

4.

5. The student should prepare a career development plan and send it 3-7 days before the committee meeting to their thesis committee and discuss it during the thesis meeting. (please use the form provided)

4. The student must bring the completed evaluation form and career development plan to the DGS for his review, discussion and signature during the open office hours.

5. After two committee meetings (approximately starting in the fourth year), students must subsequently have a committee meeting at least every 6 months. Basically there should be a committee meeting within the first half of their fourth year and maximum every 6 months after that)

5. It is typically expected that for admittance to candidacy after the first thesis committee meeting and to obtain the green light to defend the thesis, the student must obtain the evaluation of acceptable or outstanding in all 7 areas below:

Progress since last thesis committee meeting (or qualifying exam if no prior meeting)

Knowledge of the relevant scientific literature

Thinking critically about the project, seeing the “big picture”

Demonstrating initiative and independence in experimental design and project directions

Motivation and work ethic

Technical competence at the bench, trouble-shooting ability

Quality of written and oral presentations

7. Students will be evaluated during the May and June faculty meetings as described above

RESEARCH IN PROGRESS and JOURNAL CLUB:

At least 70% attendance to Journal Club and RIP talks is strongly encouraged as an instrumental part of students training and broad education. Students with at least 70% attendance are eligible to vote and obtain the prize for best RIP talk at the end of the academic.

CAREER DEVELOPMENT PLAN

Students are encouraged to think about their career goals, how these goals can be achieved during your PhD and how you can work with your mentor, DGS and graduate program to align expectations and meet these goals. Students are encourage to discuss this plan with their mentor every 6 months. Students should discuss this plan during every thesis committee meeting. Please provide YOUR INDIVIDUAL CAREER PLAN form to your committee 3-7 days before your meeting, discuss it as an integral part of your thesis committee meeting and bring to DGS after thesis meeting for feedback. You are encouraged to use bullet points.