

Advanced Research Project in Molecular Genetics

MGY480Y

Course Coordinator
Dr. Marc Meneghini

MGY480Y is an independent research course in which students pursue a project under the supervision of a faculty member in Molecular Genetics. This is a year-long course that begins in the Fall term and ends in the Spring. *To enroll in MGY480, students must first identify a faculty member willing to supervise them.* A list of our faculty and their research interests can be found [here](#). Once a supervising faculty member has been identified, you may enroll in MGY480. However, the course coordinator must receive confirmation from the professor that s/he is willing to supervise the student for the course.

Student Evaluation:

5%: Proposal (marked by course coordinator)

20%: Midterm report (marked by the supervisor with input from the course coordinator).

55%: Thesis (30%) and Oral defense (25%) (marked by the supervisor and at least 2 other faculty members who make up the examination committee). The examination committee will assess the students written thesis, their oral presentation, and their handling of questions during the oral examination. Each student's oral defense will occur sometime during the final examination period, between April 8th and April 30th. Efforts will be made to ensure that oral examinations occur on days that minimize conflicts with other exams. The examination committee will be comprised of the student's supervisor and at least two additional faculty members. Students will be permitted 10 minutes to present their work, followed by 10-15 minutes of questions from the examination committee. It is strongly recommended that students go over their presentations with their supervisor.

20%: Lab performance (this mark comes from the supervisor and is based on his/her assessment of the students performance in the lab over the course of the year).

- **Important Dates:**

Proposal Deadline: 5pm, Friday, October 4, 2024

A PDF file should be emailed to the coordinator by the above deadline.

Midterm Deadline: 5pm, Friday January 10, 2025

A PDF file should be emailed to the coordinator and the supervisor by the above deadline.

There will be a 10% penalty assessed for each 24-hour period in which the midterm submission is delinquent.

Thesis Deadline: March 4, 2025

A PDF file should be emailed to the coordinator, the supervisor, and the examination committee members by the above deadline.

There will be a 10% penalty assessed for each 24-hour period in which the proposal submission is delinquent.

Oral Exams: TBD.

- **Proposal Guidelines:**

The proposal should be 1 single-spaced page (not including references) with 12-point font and .75-inch margins. It should contain: 1. A brief descriptive title, 2. an abstract of no more than 150 words, 3. 2-3 paragraphs explaining the project and your research objectives. This section should provide the relevant background and rationale as well as your proposed line of experimentation. A small figure is permitted but must be embedded within the text and counts towards the 1-page limit. The proposal should be referenced, and these should be attached as a 2nd page.

- **Midterm Guidelines:**

The Midterm report addresses the progress you have attained through the Fall term. It should contain 3 sections: Introduction, Results and Methods, and Discussion. A formal methods section is not needed here, but enough experimental detail should be included for the reader to follow along. The report should include a discussion of the work you intend to do for the remainder of the course. It should be a maximum of 5 pages. The format is 12-point font, 1.5x spaced, and .75-inch margins. Figures, tables, and references should appear as additional pages that will not count towards the 5-page maximum.

Please note that oftentimes research trajectories will change. You may find that your midterm report has little/nothing to do with your original proposal you submitted at the start of the course. This is perfectly normal and should not be a source of distress. You should be working on your project(s) throughout the Fall with the hope of having a better idea of where things are going by the end of the term. The midterm report should thus be a summary of what you've done so far, and where your project is heading.

Your supervisor will mark the midterm with input from myself. You should discuss with your supervisor if they want an electronic or a hard copy. Submit an electronic copy to myself before the deadline.

- **Thesis Guidelines**

Use 1.5x spacing and 12-point font throughout (except for figure/table legends, which use single spacing).

Title: 15 word maximum

Authors: list all contributors. Although it is expected that the bulk of the reported work is your own, it is understandable that some reporting of other results may be important. Use the author list to include other such contributors, and be sure to specify them in the text.

Summary: A single paragraph of no more than 150 words summarizing your work.

Introduction/Results/Discussion: Break up the body of your thesis into these three sections. Use a maximum of 50000 characters.

Methods: Sufficient detail needed for an independent researcher to replicate your findings is essential. Break this up into subsections as required.

Figures and Tables: Figures and tables, with their legends, may be embedded in the body of the thesis or included at the end at your discretion. Figure legends do not count towards the character limit.

References: Use the *Nature* referencing style.

- **Oral Examination**

Oral examinations will be held during the final examination period (April 10-30). Once the final examination schedules are available, we will schedule each of your exams for you in such a way that it does not conflict with your other exams. You will be assigned an examination committee consisting of your supervisor and 2-3 other professors (who supervise other MGY480 students). The 3-4 professor committees will evaluate your written thesis and your oral defense of it. The oral exam will consist of a 10-minute presentation of your work followed by 15-20 minutes of questions from your examination committee. More granular information will be provided in late March/early April once we have gotten all the scheduling done.