

Dear Research Mentor,

Thank you for allowing our honors student into your lab and taking the time to mentor them. The experience conducting independent scholarship is invaluable for their future career. For this reason, to graduate with a major in Genetics, students are required to conduct independent scholarship, over at least two semesters. During these semesters, the student registers for research credits and are graded on their work. Therefore, at the end of the semester, we require your evaluation of their effort in your lab. We understand that you are busy and want to make the final evaluation as easy and quick as possible.

On page 2 of this document, I am providing you the expectations for the student. Knowing the student expectations at the beginning of the semester will help with your evaluation at the end. I encourage you to discuss these expectations with the student in the beginning of the semester so that there are no misunderstandings.

**MENTOR'S EVALUATION:** Two weeks before the last day of classes, the department coordinator, Amy Meerovich, will send you an email containing a link to the Mentor's Evaluation Rubric (using the Qualtrics survey system). This survey rubric (see below table) is your evaluation of the student's work while in the lab and for the semester research paper. To help with your evaluation of the rubric and grade, I have provided some guidelines on how to evaluate the student on the subsequent pages (pages 3 & 4). We will also include this information in the Qualtrics survey. Because the evaluation is part of the student's semester grade, we need your evaluation by the last day of class. The student can provide you with that date.

Thank you again and best wishes,

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### RESEARCH MENTOR'S EVALUATION RUBRIC (01:447:408)

Rubrics	Ranking (Lowest to Highest)			
	Unsatisfactory	Satisfactory	Good	Outstanding
A. Technical Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Analysis, Presentation, & Interpretation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Conclusions, Implications, & Future Directions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Effective Oral Communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Student semester grade for time in your lab and the semester paper:** \_\_\_\_\_

#### Grading for the course:

A (90-100), B+ (87-89), B (80-86), C+ (77-79), C (70-76), D+ (67-69), D (60-66), F (0-59)

Percent of grade	Description
85%	Research mentor's grade (end of the semester)
15%	Completing other course requirements (detailed in next 4 rows)
• 5%	• SURVEY: Current Independent Scholarship project & mentor information
• 5%	• Submitting Thesis Committee Form to Canvas site
• 5%	• Submitting Latest draft of Thesis (from 447:414 course)

**Please see following pages for expectations for student and the guidelines for evaluation rubrics and grade.**

## Student Expectations and Mentor Evaluation Guidelines for 01:447:408 *Honors in Genetics*

*This form should be read at the beginning of the semester by both the student and his/her research mentor.*

### EXPECTATIONS OF THE RESEARCH HONORS STUDENT

To make the experience worthwhile for both the honors student and the research mentor, we expect the student to commit a sizable amount of time to the Honors Research course. The course is not, and should not, be “an easy A” course (many students do not get an "A"). On average, the student should expect to spend a minimum of 3 to 5 hours a week per credit in the lab during the Fall or Spring semesters. Thus, for a typical three-credit course, students are expected to work a minimum of **9-15 hours per week**. For a student performing 6 credits of Honors, the expectation is a minimum of 18-30 hours per week. During this period, the student is expected to be in the lab conducting experiments, organizing their data, reading background literature, attending lab functions and meetings, and completing reports. In addition, the student is expected to complete the

### Thesis Writing and Communication in Genetics Course

Honors students take an additional course, *Thesis Writing and Communication in Genetics* (01:447:414), to assist them in writing their Introduction and Materials and Methods sections of their thesis by the end of the fall semester. Students should submit draft of these sections to their research mentor well in advance of the due date, so that the mentor can review and provide comments, corrections, and edits. The written thesis is a major part of the grade and must be written in the student’s own words. The student should avoid extensive quotes and paraphrases. Their written work will be assessed in the 01:447:414 course.

**Honors thesis draft.** The **FINAL** Honors thesis in the format of a scientific paper is required in the spring semester (01:447:409). However, at the end of the fall semester for Honors in Genetics course (01:447:408), students need to submit the latest draft of their thesis (from 447:414 course). Guidelines and format for the drafts of thesis can be found on the *Thesis Writing and Communication in Genetics* (01:447:414) as well as on our departmental website.

### Mentor’s Evaluation Rubric and Grade

A major part of the student’s course grade (85%) is based on **research mentor’s evaluation (see table on previous page)**. Two weeks before the last day of classes, the department coordinator, Amy Meerovich, will send the mentor an email containing a link to the Mentor’s Evaluation Rubric. This rubric includes the research mentor’s grade for the student’s time in the lab. Since the mentor’s evaluation is part of the semester course grade, we need the evaluation by **last day of classes**. The student is responsible to alert your research mentor of this deadline.

**IMPORTANT: If your research mentor does not complete the Qualtrics rubric by the time grades are due at the registrar, the student will receive a "TZ" grade for the course!!!**

## Mentor's Evaluation Guidelines for Rubric

### A. Technical Ability

- **Outstanding:** Skillfully employs technologies to access information, research an issue, test a hypothesis, and communicate findings. Makes effective and efficient choices. Demonstrates a sophisticated understanding of the strengths and limitations of a particular technology (or methodology the technology allows).
- **Good:** Efficiently employs appropriate technologies to access information, research an issue, test a hypothesis, and communicate findings. Identifies the strengths and limitations of a particular technology (or methodology the technology allows).
- **Satisfactory:** Satisfactorily employs appropriate technologies to access information, research an issue, test a hypothesis, and communicate findings as directed by the course. Satisfactorily recounts the strengths and limitations of a particular technology (or methodology the technology allows).
- **Unsatisfactory:** Does not employ appropriate technologies to access information, research an issue, test a hypothesis, and communicate findings. Cannot identify the strengths and limitations of a particular technology (or methodology the technology allows).

### B. Analysis, Presentation and Interpretation of Data

- **Outstanding:** Clear and effective analysis and presentation of data. Accurate interpretation of data and recognizing its limitations. When assessing statistical and scientific research, the student applies standards of reproducibility, falsifiability, and generalizability.
- **Good:** Clear analysis and presentation of data.
- **Satisfactory:** Presentation of data with little to no analysis and interpretation.
- **Unsatisfactory:** Poor presentation of data and no analysis and interpretation.

### C. Drawing Appropriate Conclusions and Identifying Implications and Future Directions

- **Outstanding:** Draws accurate and relevant conclusions from data; makes appropriate connections between hypothesis, data and conclusions; conclusions address and logically refute or explain lack of/conflicting data; insightful or sophisticated identification of implications and future directions.
- **Good:** Draws accurate conclusions from data; reasonable and clear chain of logic from hypothesis to data to conclusions is made; conclusions attempt to discuss or explain conflicting/missing data; offers appropriate implications based on the conclusions and offers appropriate directions for future work.
- **Satisfactory:** Attempts to draw conclusions, but they are inaccurate; connections between hypothesis, data and conclusions are present but weak; conflicting/missing data are poorly addressed; offers implications and future directions that are not very relevant to the project.
- **Unsatisfactory:** Makes no attempt to draw conclusions or make appropriate implications.

### F. Effective Communication – Oral

- **Outstanding:** Effective audience engagement (e.g., eye contact), supporting audience involvement; effective variations in rate/volume/tone/voice inflection for audience/purpose; fluent delivery and effective response to all questions asked.
- **Good:** Fluent delivery and appropriate response to most questions asked. Engagement with audience is not consistent or not with the entire audience; effective rate/volume; appropriate tone/voice inflection for audience/purpose.
- **Satisfactory:** Minimal audience engagement; some reading of content; some rate/volume inadequacies; little variation in tone/voice inflection; somewhat halting delivery with frequent space fillers (e.g. “um,” “like,” etc.); unable to completely answer most questions.
- **Unsatisfactory:** Little or no audience engagement; reads content; speaks too fast/too slow; speaks too loud/too soft; speaks with monotone/highly erratic voice inflection; halts delivery with frequent distracting fillers; unable to answer any questions.

**Suggested grade for course**

- **A** The student has surpassed the expectations of the course and demonstrated “outstanding” achievement evaluations in most or all rubrics.
- **B+** The student has surpassed the expectations of the course and demonstrated a combination of “outstanding” and “good” achievement evaluations in the rubrics.
- **B** The student has achieved the learning goals of the course and demonstrated “good” achievement evaluations in most or all rubrics.
- **C+** The student has achieved the learning goals of the course and demonstrated a combination of “good” and “satisfactory” achievement evaluations in the rubrics.
- **C** The student has achieved some but not all of the learning goals of the course and demonstrated “satisfactory” achievement evaluations in most or all rubrics.
- **D** The student barely achieved any of the learning goals of the course and demonstrated a combination of “satisfactory” and “unsatisfactory” achievement evaluations in the rubrics.
- **F** The student did not achieve any of the learning goals and demonstrated “unsatisfactory” achievement evaluations in most or all rubrics.