Course Expectations and Grading Guide for 01:447:408 Honors in Genetics  Fall Semester

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

Expectations of the Honors Research Student
To make the experience worthwhile for both the 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. On average, the student should expect to spend between 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 would be expected to work 12-15 hours per week. For a student performing 6 credits of Honors, the expectation is 25-30 hours per week. During this period, the student will be expected to be in the lab conducting experiments, organizing their data, reading about their research project, attending lab functions and meetings, and completing reports and working on their Honors thesis.

A written Honors thesis in the format of a scientific paper is required at the end of the Spring semester (01:447:409). Guidelines for thesis can be found on the course sakai site as well as on our departmental website:


Requirements for the Fall Semester (01:447:408)
Honors students take an additional course (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 he or she can make corrections and give suggestions. 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.

No research paper needs to be uploaded to SAKAI during the Fall semester.

However, the research mentor does need to send his or her answers and the letter grade to the Vice Chair by the first day of exam period (see below). It is the responsibility of the student to know the due date.

Grading
Students will be graded by their research mentor based on the following rubrics. Students and research mentors should familiarize themselves with the rubrics so as to understand course expectations. Faculty mentors should complete this form and email it to the Genetics Department Vice Chair at heiman@dls.rutgers.edu by the first day of final exams.
MENTOR EVALUATION

Student:
Research Mentor:
Semester and Year:

Please rank the student in the appropriate box for each rubric (A-G). Please use the rubric descriptions that follow to guide your evaluation.

<table>
<thead>
<tr>
<th>Rubrics</th>
<th>Ranking (Lowest to Highest)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Technical Ability</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>B. Analysis, Presentation, &amp; Interpretation</td>
<td></td>
</tr>
<tr>
<td>C. Conclusions, Implications, &amp; Future Directions</td>
<td></td>
</tr>
<tr>
<td>D. Effective Oral Communication</td>
<td></td>
</tr>
</tbody>
</table>

Suggested Grade For Course:

Guidelines For Student Assessment Using Rubrics

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, 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.
D. Effective Communication – Oral (e.g., laboratory group meeting presentations)

- **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.

**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.