

The goal of the report in Biol 7220 is for students to undertake an in-depth analysis of a challenging data set that is as close as possible to their thesis. Students are thus well prepared when they reach the data analysis stage for their thesis. The methods section of the report is in a narrative form so that the analytic sequences and logic behind each analysis are explicit. This differs from the results section of a scientific publication, where limitations of space require a terse presentation of key results in highly condensed forms.

Given these goals, here is how the graduate student projects (Biol 7220) are marked.

First, I read through each report, making notes and corrections on the paper copy. I pay particular attention to the narrative, whether analyses are correct, whether evidence is adequately displayed, and whether there are errors in logic, procedure, or interpretation. Then I assign each paper a mark in the following categories.

Comprehension - Does the narrative of data analysis demonstrate comprehension of the concepts and principles learned in the course, or learned in tutorial sessions (where the material goes beyond what is presented in the lectures).

Execution - Are the analyses executed in a logical fashion, with adequate evidence for statements, summaries, etc. Are the computations consistent ?  
Some computations are checked.

Presentation - Is the Introduction clear, logical, and easy to follow ?

Is the Discussion clear and easy to follow ?

Is the Results narrative logical and easy to follow ?

Are graphics and tables used effectively.

Are graphs and tables presented at appropriate places in the narrative ?

Are summary tables presented at the end of a narrative sequence ?

These three marks are placed at the end of the paper, so they can't be seen on second reading.

Once I have completed all of the papers I read them again, in the same order, starting at least a day after I finish the last paper. Each paper is read about 3 days after its first reading. (After 3 days I am incapable of remembering the marks assigned to over 20 papers).

As I read them I evaluate the paper in the same categories.

I write this mark down.

Usually these marks are within 5 points of the first mark.

If the mark differs from the first by more than 10, I re-examine the paper, then adjust the second mark toward the first mark to some degree, depending on the reason for the discrepancy.

The effect of the second mark is typically to adjust the class marks toward greater consistency among students, as I complete the second marking in a single 3 hour session. The final mark on the report is the average of the 6 marks assigned.

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