

Physics 440 (ILab) – Information for Final Presentations

Like the initial presentations, the final presentations for ILab are modeled on talks given at research conferences. Most of the same points and procedures listed for the initial presentation are equally true for the final presentation, so please review the earlier handout "Information for Initial Presentations".

Like the initial presentation, the final presentation will be given using viewgraphs. Questions and discussion will be held until the end of the presentation.

Unlike the initial presentation, the final presentation should be **20 minutes long**. The extra time is to allow you to present your own data, your analysis of it (with uncertainties) and to draw conclusions from it.

The purposes of the final presentation are:

- (a) To tell us *what you did* and *why*. Start from the beginning and assume that the audience has *not* seen the initial presentation. That is, assume that your audience does *not* know the physics that you had to learn to do the experiment. Assume that your audience knows nothing about the experimental setup. Show at least some of your own real data to show that you really did the experiment.
- (b) To present your results in an honest, straightforward way. Do not oversell by pretending to measure results that you really didn't; do not undersell by failing to extract all the possible value from your data and observations.
- (c) To convince your naturally-skeptical audience that you understand the main sources of uncertainty in your results.
- (d) To show that you understand clearly the significance of your results.

The final presentation should make sense to anyone in the field of physics (*e.g.* your peers), even if they did not hear the initial presentation and have never seen the lab.

On the following page is a form we will use to evaluate final presentations -- use this as a check-list as you prepare the talks.

Instructor's Evaluation of Final Presentation

Date _____ Group (presenter circled) _____

Experiment _____ Evaluator's initials _____

Ready for delivery at the scheduled time?

Starts with title, authors, brief outline?

Oral presentation clear and well-delivered?

Viewgraphs clear and professional looking?

Presentation would make sense to a physics senior who did *not see* the initial presentation?

Logically moves from introduction and background, to project at hand and conclusion?

Close to specified 20-minute duration?

Was the relevant physics presented correctly?

Can the listener tell what was done?

(layout of apparatus, how data were taken and analyzed?)

Were uncertainties and corrections treated and presented ?

(Corrections applied properly, or *quantitatively* shown to be insignificant?

Reasonable *quantitative* uncertainties deduced and presented for all measurements?

Uncertainties correctly propagated to final results?)

Were reasonable conclusions drawn?

Entire group reviewed presentation and participated in discussion?

Overall comments and grade: