Oral Presentations

In this laboratory course you will give two oral presentations. The first is a group oral report of the theory and methodology for a research project. The second is a group poster presentation of your physical chemistry research project.

Oral communication competency is the ability to get your point across to your audience in a way that makes them appreciate your ideas. To do this you must work at 3 levels:

> knowledge – do you fully understand the subject matter; can you put your work into the context of others; can you relate the topic to ideas that your audience understands?
>
> skill – can you provided well organized results and arguments; is your thought process clear?
>
> motivation – are you willing to engage with the topic and your audience; are you enthusiastic about the subject matter; does this enthusiasm convey?

Both of these oral communication opportunities are meant to introduce you to the styles of presentation generally used by the working chemist. In both formats, the goal is to inform your audience about your results or ideas; a "great talk" is one that leaves your audience thinking about what you have said.

Formal Oral Presentation

You will choose one of the projects (or one of your own) to present in a 20 minute, oral presentation. Consider that the same type of information presented in a written laboratory report must be conveyed in an oral format. In addition, you should attempt to connect your project to current physical chemistry research. A very general outline for an *entire* (you will only be presenting a research "proposal"—background theory and methodology) typical presentation is

I. Introduction
  A. Background information
  B. Theory behind the experiment
  C. Purpose of the experiment
II. Experimental Method
III. Results
  A. Tables and graphs
  B. Sample calculations
IV. Discussion
  A. Analysis of results
  B. Discussion of results in context (questions)
  C. Connection to quantum mechanics and recent literature
V. Conclusions
  A. Areas for improvement
  B. Future studies
  C. How the results fulfilled the purpose