Synthesis Project Presentation Guidelines

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<th>Presentation Dates:</th>
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<td>Monday Lab: November 28th</td>
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<td>Friday Lab: December 2nd</td>
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**From the lab syllabus:**

**Oral Presentation (in lab, 2nd to last week):** Each student pair will give a short *(15 minutes total)* presentation of their synthesis project. Presentations can be given either in powerpoint (or similar presentation software) or using overhead slides. Both students should contribute equally to the preparation and delivery of the presentation. The division of content is up to you, but the talk should be organized so that only one person at a time is the presenter. The talk is mostly a summary of the written report and should address the following: a brief introduction and background, computational results, a description of each synthetic step (mechanisms), explanation of the chosen characterization techniques, and a summary of the results (overall yield, purity, etc.), literature references. Both presenters should be able to answer audience questions regarding their project.

   My intention is that the presentations are handled in a professional, but relaxed setting. This is a good opportunity to practice for senior chemistry seminars, scientific job interviews, etc. My hope is not only that each of you will give a satisfying talk, but that you will have a chance to improve on your presentation technique while learning about everyone's projects.

**Organizing the Presentation:**

How you deliver the talk is up to you, but keep in mind that only one person should be standing and presenting at a time. Also, it is strongly recommended that you minimize the number of times that the presenter switches, to avoid disrupting the flow of the presentation. Either electronic (Powerpoint, Keynote, etc.) or overhead slides are allowed. In either case, slides should be neat and prepared using a computer. Spectra can be presented on the overhead projector (even if you are presenting everything else from a computer) or spectra can be scanned and imported electronically into the presentation. Scanning can be done in Lovejoy 400: [http://www.colby.edu/info.tech/howtos/other/scan.html](http://www.colby.edu/info.tech/howtos/other/scan.html)

   Presentations should be approximately 15 minutes long, plus a few minutes for answering questions. Practicing in advance (the best way to ensure a good talk) is a good way to gauge the time.

   For determining content, use the lab report guidelines as an outline. Below is an overview of what is expected—you are not limited to this list of points. The order that you present this information is up to you, but a good presentation will include the following:

**Title:** A short, descriptive title of the project

**Introduction:**

- Indicate which project was chosen.
- *Very briefly* describe the target molecule and why it is interesting—try to find out something about the molecule that nobody else knows.
- Give the overall proposed synthetic steps, and REFERENCES to their source(s).
- Pick ONE synthetic step and describe the reaction mechanism, using arrows to indicate electron movement, etc.

**Experimental:** This should be the main part of the talk.

- Briefly describe the procedure for each step (a diagram of the reaction setup may be useful, especially if you did something unique).
• Describe what you observed (color changes, precipitate, exothermic reaction, etc.)
• Give available data for each step: yield, melting point, visual description of product, etc.
• Spectra: Show relevant spectra, and indicate how the spectra support the presence/purity of your products.

Discussion and Conclusions: This is also a major section of the talk. Consider the following points:
• Did the steps work? If not, then why not?
• How might the procedure be changed to work better next time?
• Was a pure product obtained? If not, then what could you do to purify it?
• Spartan calculations: Indicate what calculation you performed.
  • What useful information does the calculation provide?
  • Did the experimental result match the calculation? (if applicable)

Evaluation: You and your partner will share a single grade for the presentation. The presentation will be graded as follows.

| Content: 50% (was sufficient, relevant information presented?) |
| Understanding/Answers to Questions: 20% (do you understand the material?) |
| Delivery: 10% (did you appear prepared to speak? could we hear you? did you make eye contact?) |
| Slides: 10% (were the slides neat and readable?) |
| Length: 5% (were you much too long or much too short?) |
| Equal Time: 5% (did both partners present a fair share?) |

Presentation Day:

Presenters: If you will be using a computer, bring the presentation on a portable medium (CD, USB drive, etc. and transfer it to the presentation computer at the beginning—we will all be using . If you are using transparency slides, bring these (a paper copy between transparencies is a good idea). Be ready to go—the order will be predetermined in class before Thanksgiving Break. I will bring a pointer for anyone to use. After each presentation, there will be a few minutes (5 or less) for questions. Be able to put previous slides up for reference when answering questions. Feel free to use the boards in answering questions.

Audience: Be courteous. Please listen quietly during other talks (i.e. don't use the time to review your notes). If you have questions, please save these until the question and answer session at the end of the talk.