

ORAL PRESENTATION GUIDELINES

Many scientists depend upon communication in both the written and oral form to find out what questions other scientists are asking and whether the data they collected can help answer those questions. Communication is particularly helpful when scientists or a group of scientists are working on the same question or similar models. Failure to communicate with interested constituencies would likely result in the re-invention of the wheel for many scientific questions.

Of course there are many ways scientists communicate their results or ideas to other individuals interested in their work. Sometimes scientists, like yourself, will write manuscripts that detail why (introduction), how (materials and methods), and the significance (discussion) of their work. You will continue to practice this mode of communication throughout your tenure here at Truman and maybe in your future careers.

Scientists also communicate their ideas orally and in person to an audience or individuals. At times, this type of communication is informal, as when researchers get together over lunch. Other times scientists discuss their research and ideas in a formal talk. This formal talk is usually presented in meetings where the presenting scientist will report all of the elements of a written paper: introduction, materials and methods, results, and discussion.

In a very similar way, I want your group of student researchers to orally present your findings to the entire class, which may have worked on similar topics. Each group will have a total of **15 minutes to present all elements (12 minutes for their talk and then 3 minutes for any questions)** of their study in a formal talk. As with the written portion of your study, **all members** are expected to contribute to the successful completion of the talk. Although I encourage all members to stand before the entire class and participate in the actual presentation, I would understand if only one or two of the students would present the group's findings. However, at any point, any student listener or myself may ask ANY member of the group to describe or explain ideas, concepts presented or answer questions that may arise.

The presentation portion of your project will be worth 50 points and your grade will come from two sources, a) your fellow students will grade you on the clarity, content and effectiveness of your presentation (using the rubric at the end of this page, 50% of your grade), and b) I may grade you on the same criteria (50% of your grade). As added incentive for groups to do a good job on their presentations, the individuals belonging to the team with the highest average score (based on student scores) will have a bonus number of points added to their score.

The following reminders may be helpful:

1. Appoint one member of your group to be the recorder of EVERYTHING you do. This will help when you begin writing your materials and methods.
2. Everybody in the audience wants you to do a good job. Nobody's out to get you. . . I think.
3. Practice your talk before you get up in front of class.
4. Have your presentation look professional. Handouts with crayons won't impress much.
5. Try to have fun. The more relaxed you are, the more relaxed your audience will be.
6. Be prepared for ANY question. Have interested individuals listen to your presentation and critique it. Have them ask you questions about your project.
7. Be civil.

Guidelines for Oral Presentations

Your presentation should include all of the elements listed below. Your group will be graded according to how well you have covered each of these elements.

A. Content (60 %)

1. Background and Significance _____ (10 pts)

why did you ask the question(s) you did?

why is this an interesting question?

what is your specific hypothesis or hypotheses?

2. Methods _____ (10 pts)

Keep this section **brief** - It may be a good idea to assume everyone knows simple microbiological details (e.g., how to use sterile technique to transfer bacteria or the use of a pipettor imaging system), so you do **not** need to explain such aspects; rather, only point out those procedures of your project peculiar to your group's experiment. For example, what media and antibiotic(s) you used, in what sequence, for how long, etc.

3. Results and Interpretation _____ (20 pts)

In a written paper or report, the results are usually separated from the discussion. In contrast, in an oral report, this is not usually the case. It is usually better to present interpretations (i.e., your discussion) of the results (the facts or data) as you present the results.

Be sure to address the statistical analysis of your results - proper statistical interpretation of your data is crucial!

4. Summary and Conclusions _____ (20 pts)

Here, you should condense your major findings and interpretation into a **maximum of 3 concise points**. What are the most important take-home messages about your experiment that you do not want your audience to miss or forget?

B. Presentation (40%) - your grade will take into account each of the following three categories:

1. Visual Aids _____ (15 pts)

In addition to the chalk board, we will have an overhead projector available. Ambitious students will make arrangements to present computer presentations, movies, live demonstrations, etc.

2. Clarity and Timing of Presentation _____ (15 pts)

Each group is limited to **about 12 minutes** for their presentation; please be sure that your group's presenter(s) speaks **loudly and clearly** enough to be heard. Also, please try not to speak too quickly or too slowly.

3. Questions and Answers _____ (10 pts)

There will be about **2-5 minutes** for questions from the audience (including the professor) after each presentation. I encourage all students to participate - answering questions for the audience can help clarify muddy parts of the presentation. However, in past years, this has not been sufficient to draw out questioning. Therefore, I may require that each group ask at least one question of the presenting group.