

# Final Lab: Beamer and Oral Presentations

We'll start our final lab this week. The final lab in this course is to construct and give a short mathematics presentation using the “Beamer” package in LaTeX (Beamer produces a presentation much like PowerPoint).

Here are some guidelines for the lab:

- The topic should utilize Maple in some sense.
- The oral presentations will be 5 minutes per student- If there are two students on one project, you'll have 10 minutes total, for example.
- You'll write up your presentation in Beamer (we'll start this next week).
- You'll upload the PDF file (and any other material, like animations, etc) to your CLEo folder.

## Topic Ideas

Find a topic that you like, and that you can make accessible to a student in Calculus III. Here are some ideas for topics, with some background on each. It may be hard to cover some of these in 5 minutes, so you might want to work in a group. Each of these topics has a discussion on CLEo:

Portfolio Theory, Newton's Method and Fractal Patterns, Modeling the AIDS Epidemic, How to Tune a Radio

## Timeline

- This week: Think about topics, start to look at Beamer files. Also, we'll discuss the previous lab write up.
- Next week: Decide on groups and topics. We'll talk a little about Beamer, then you'll have the rest of the time to work.
- Third week (Last week of class): Finish up presentations, get ready for your talk.

## Grading

The oral presentations are worth 20 points total. Here is the rubric I'll use:

- (4 points) Does the presentation effectively represent your topic? (That is, have you avoided trying to do too much or too little?)
- (4 points) Does your presentation effectively use Beamer - Are the slides error free and coherent? Are references included?

- (4 points) Are the mathematics and figures typeset/placed in an aesthetically pleasing way?
- (4 points) Were the speaker(s) clear, loud enough, and understandable?

I'll reserve 4 points for a class grade- That is, each student will turn in a "grade" on each speaker based on the above criteria (just a plus/minus score for each), and I will use that as a basis for the last 4 points.

Some notes about giving a good presentation:

- Do not simply read your slides. Include enough information so that you recall what details to fill in, but the slides themselves should be "clean".
- Playing with "frills" (like flying bullet points) might be fun, but they tend to be distracting.
- Our talks will be short, so focus on just one or two important topics/examples that you want the audience to remember later- Don't try to jam everything in!

## Common Issues:

### How can I insert images from the Web?

You should use either JPG or PNG format for pictures. If you download a different format, see me about how to convert formats, or search for an "online image format converter".

### Using verbatim in the frames

It is helpful to be able to include some Maple commands in the slides.

Here is an example frame for Beamer- Note the command `[fragile]` (that's what you need to make it work).

```
\begin{frame}[fragile]
```

Here is an example of using the `\verb+verbatim+` command:

```
\begin{verbatim}
```

```
plot(sin(x),x=-Pi..Pi);
int(sin(x)*cos(2*x),x=0..Pi);
```

```
\end{verbatim}
```

```
\end{frame}
```