**Poster Basics**

As can be seen in our sample posters, posters can be constructed in a number of ways. Regardless how you choose to do it, the basic principles remain the same:

1. **Get your information across quickly, as visually as possible.**
   This means truly thinking about the key points of your presentation, rather than counting on pasting your entire paper onto a large piece of paper. You will be there to fill in details and answer questions for those that are interested. For the more casual reader, you want to make sure they get your main point(s) even if they don't want to stop and talk.

2. **Be neat.**
   Nothing creates a negative image about your work faster than misspellings and sloppy poster construction. It's not an art & grammar contest, but sloppy presentation speaks volumes about the quality of your research and scholarship.

3. **Know your own project!**
   People will be interested in what you did and why it might be important. Refresh your memory about your own project-- the background, methods, analyses, and conclusions-- so you can speak intelligently about it when someone asks. Don't count on your advisor to bail you out when someone asks why you did a multiple regression instead of a MANOVA.

4. **Did I mention you need to get your information across quickly?**
   Limit the total number of words on your poster to no more than 1000. Some will suggest even this number is too high. If you're presenting a research project, consider these as guidelines:
   - **Title:** Limit to 1-2 lines of 72-80 pt. font.
   - **Abstract:** 50-100 words. The attendees already have your expanded abstract handy. This should get at the key points only.
   - **Introduction:** 200 words. Do not provide a full literature review. Instead, give a picture of the main issue (why should we care?), previous work directly relevant to your project, and what your project was specifically designed to address. This should be followed by a bulleted listing of your hypotheses or specific research question.
   - **Methods:** 200 words. Don't count on providing the nuances and details that you would in your complete paper-- Remember that you'll be there to explain yourself. Instead, be sure to include the key elements and consider presenting these as bullets rather than in paragraph form.
   - **Results:** 200 words. Similar to the Methods section, stick to the main issues. Of course, note how your hypotheses fared in the final analyses. Again, use bullets. Use graphs or figures to represent your
main findings/what you want people to actually see and remember.

Discussion: You guessed it-- 200 words. Address your key questions and hypotheses again and state in words what your results showed. Remember, most people will read this section BEFORE they read your Methods or Results.

Conclusions: 100-200 words. Explicitly spell out what one should draw from your research, what it suggests about future directions, etc. What's the take-home message? Why should anyone care?

Citations: Cite any literature noted in your poster, using the style appropriate to your discipline.

5. Did I mention making it visually appealing? No? Well, do that. As with neatness, you'll want to take advantage of the fact that this is a visual display. Make it interesting! Use appropriate pictures, graphs, illustrative graphics. Use colors to help highlight important points or to guide the reader. However, always keep clarity in mind. Just because your computer can print that color combination doesn't mean you have to use it! Some visual tips:

   - Use colors that draw attention, but avoid irritating color combinations that vibrate, such as some complementary color combinations.
   - Use fonts that are easy to read (e.g., Times New Roman) in sizes that can be read from 4-feet away. See size guidelines below.
   - Use graphs. However, make sure the labels are clear to someone unfamiliar with the project (e.g., use explanatory labels, not what Excel stuck in there for you) and remember the font-size guidelines. Also, avoid 3-D graphs if you have 2-D data-- the latter is easier to read. And pay attention to the color issue.
   - Pictures. Use them if appropriate. Be aware that posters are BIG. Accordingly, you're often blowing up pictures 400% or more. If your picture resolution is low, it will look pixilated. See how it looks blown up beyond the size you'll print it. Avoid 'bitmap' format-- use .gif or .jpg instead.

   If using the cut and paste method of poster construction, use a mat knife and t-square to keep your lines straight. Use mats or poster boards that help offset the main pages.

   If gluing anything, use a spray glue (e.g., photo mount spray) to get a clean, flat mount. Do this in a well-ventilated area and learn to appreciate what being human fly paper must feel like.

6. There are places to go for advice:

   Your advisor! They'll have opinions on these things.

   URS committee members.
Walk around campus and view posters hanging in hallways—You'll see both good and bad examples of posters. Each is instructive.

Web sites:
  - http://www.swarthmore.edu/NatSci/cpurrin1/posteradvice.htm
  - http://www.ncsu.edu/project/posters/IndexStart.html
  - http://courses.washington.edu/~hs590a/modules/19/ppposter.html

  and many more—Just Google "scientific poster advice"

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**How to make a big, glossy poster**

UMM's Duplicating Services Dept. has a printer that will print posters 40" high by whatever width you want (for $10 per foot). For the URS we ask that you keep the poster to 4' wide or smaller. The price is the same for color or black and white printing. Talk to your advisor about how to pay for a poster and contact the URS committee if needed.

Be aware that these posters take time to print and dry. Allow 4 hours per poster (assuming everything has been prepared correctly). This means planning ahead—Aim at having your posters ready 3 to 5 days in advance of the time you need it. **NOTE:** Bring a 8.5 X 11 copy of your poster with you to Duplicating so they have an idea of what you think the poster should look like. This can be black and white.

Printer characteristics to be aware of:

- Resolution of pictures and graphics should not be less than 300 dpi. The printer prints at 600 dpi, so going beyond that won't help much.
- DO NOT use "symbols" font for mathematical symbols. Instead, use
"special characters" or provide a JPEG or GIF image of your full equation.
If saving as a PDF document (which Duplicating recommends), be sure to save either as "press" (highest quality) or "print" (next highest).

**What program should I use to make a poster?**

You have several choices. The most common approaches are:

PhotoShop (best choice for including complex graphics, allowing overlap of graphics, etc. If you're considering this, I'm assuming you or your advisor are already familiar with this program and I won't talk about it further here.)

Word. This is readily available and most students already know how to use it. I'll discuss setting up posters using tables or (preferably) text boxes. The downside is that Word doesn't allow editing in actual size (it limits paper size to 22 inches). However, you can edit in word and ask Duplicating to enlarge your project the appropriate % to fit the poster. This is the option we'll discuss.

PowerPoint. Similar to using text boxes in Word, you can edit in actual size.

**Font size guidelines**

For a 40X48 poster the final font sizes should be:

Title: 72 to 80 pt.; **bold**, title or sentence case
Authors: 52 to 60 pt.; **bold**
Advisor: 52 to 60 pt.; plain
Headings: 48 to 52 pt.; **bold**, sentence case
Text: 28 to 32 pt.; plain.

For Abstract, text should be larger (32 to 40 pt.) and **bold**;
For Hypotheses and Conclusions, text should also be larger (32 to 40 pt.), plain.
Works cited, acknowledgements, etc.: 24 pt.; plain

If starting with 8.5 X 11 document, adjust your font sizes accordingly:

Title: 16 to 18 pt.; **bold**, title or sentence case
Authors: 12 to 14 pt.; **bold**
Advisor: 12 to 14 pt.; plain
Headings: 11 to 12 pt.; **bold**, sentence case
Text: 6.5 to 8 pt.; plain.

For Abstract, text should be larger (8 to 9 pt.) and **bold**;
For Hypotheses and Conclusions, text should also be larger
(8 to 9 pt.), plain.
Works cited, acknowledgements, etc.: 5 to 6 pt.; plain

If starting with **18.33 X 22** document, adjust your font sizes accordingly:

**Title:** 32 to 36 pt.; **bold**, title or sentence case
**Authors:** 24 to 28 pt.; **bold**
**Advisor:** 24 to 28 pt.; plain
**Headings:** 22 to 24 pt.; **bold**, sentence case
**Text:** 13 to 15 pt.; plain.

For Abstract, text should be larger (15 to 18 pt.) and **bold**;
For Hypotheses and Conclusions, text should also be larger
(18 to 20 pt.), plain.
Works cited, acknowledgements, etc.: 11 pt.; plain

**Additional font notes:**

To emphasize something, use *italics* rather than underline.
If using sub- or superscripts, be sure to go to **Format -> Paragraph** and set your
line spacing to be "exactly x pt.", where "x" is the size of font you're using, so
lines above or below aren't bumped a 1/2-step.
Don't use ALL CAP's-- they're hard to read.
Use simple, straight-forward fonts.
As stated above, avoid using the Symbols font: The printer doesn't like it.

**Making posters in Word:**

Because Word limits the size of paper you can edit in, your first step will be to
choose the size to set the document. In Word, choose **File -> Page Setup.** Then
choose **Landscape** orientation. Choose **Paper** and enter the paper size ("width"
will now be the larger dimension).

In Word you can organize your poster using Text Boxes or by using Tables.

**Using 8.5 X 11 paper size:** Word and converting to PDF works much more
easily if you start out with a document that will fit on 8.5 X 11 paper. The downside is that you'll need to enlarge it quite a bit, so you NEED to save in high resolution ("press" conversion for PDF) for a good outcome. **Text boxes** give you more control over placement of material and allow more flexibility in layout. This can also allow for a picture or colored background (if you set the background as one large text box). Be sure to set internal margins in the text boxes to produce some space between groups of text. To keep the proportions correct, I've set up the template for a paper size of **10.2 X 8.5**.

**Tables** make it a bit easier to set exact sizes of areas and behave better for word-wraps, but you have to be adept at merging and splitting table cells to use this option effectively. Here's a template for using tables on a 8.5 X 11 document:

If you want to edit it at a size where the enlargement will be the least, set your paper size at 18.33" high by 22" wide. This will keep your poster proportional to the 40" X 48" final size. **However, I've had trouble turning these large sizes into PDF documents.**

Margins(right, left, top, and bottom)for the example posters above were + 0.25" for the 8.5 X 11 example + 0.50" for the 18 X 22 example.