Pre-Defense Presentation Guidelines

During your last semester of residency at Virginia Tech, you will be required to present your independent research to the faculty and your peers in a common pre-defense session to meet Department of Building Construction graduation requirements. The pre-defense presentation serves as a means of sharing your findings with others in the department and providing feedback for you to ensure that your final defense goes smoothly. The purpose of this document is to provide guidelines for your presentation to ensure it meets all requirements and effectively communicates your work.

Presentation Structure

In your pre-defense presentation, you will have no more than 15 minutes to concisely present your work, followed by a 15 minute question and answer session with the faculty. Presentations will be timed, and you will be stopped at the 15 minute mark whether or not you have completed your presentation. Thus, it’s important that you carefully design your presentation to be concise and practice its delivery to remain within the time limit.

The main areas your presentation should cover are the following:

**Title/Team** – Provide a title slide for your presentation and introduce yourself and your committee (1 slide)

**Problem/Significance** – Describe your problem area and establish why it is significant for construction. Introduce relevant stakeholders (1-2 slides)

**Prior Art** – Provide a brief overview of how others have tried to solve the problem before, and summarize why additional work is needed (1-2 slides)

**Research Question, Scope, and Limitations** – Clearly state your research question and hypotheses (if appropriate). Articulate any scope constraints, stipulations, or limitations to your research (1-2 slides)

**Research Objectives/Design/Methodology/Approach** – Describe your overall research objectives and design, including your population/sample for data collection and methods for data collection and analysis (2-3 slides)

**Findings/Results** – Describe the data you collected and the results of your analysis, focusing on the most significant and relevant findings (2-3 slides)

**Conclusions** – Describe how your findings answer your research question or test your hypothesis (1 slide)

**Contributions and Impacts** – Describe how your work extends or builds upon prior art. Describe how your work has the potential to benefit relevant stakeholders (1-2 slides)

**Areas for Future Research** – List and describe additional questions or areas for further work that have arisen from your project (1 slide)

**Questions** – Thank the audience for their attention and ask if there are any questions. Include your contact information (1 slide)
General Slide Design Guidelines

To maximize your effectiveness, consider the following suggestions when designing your slides.†

**Suggestion 1: Keep it Simple**

A popular rule of thumb is no more than 5 (+/- 2) points on a slide. A more useful rule of thumb may be no more than 1 idea per slide. A good slide guides the viewer towards the essence of an idea, rather than listing of the idea's attributes.

**Suggestion 2: Less is More (More or less)**

Try not to clutter a slide with too much text, graphics, or color. Research from Wharton suggests no more than 4 colors per slide and a minimum spacing of 1/2 inch between items. Rules like this (of course) are made to be broken, but it is a good general principle. Don't put anything you are going to say on a slide - the audience is likely to be bored. Be extremely cautious about incorporating animations or sound effects. Virginia Tech provides standard professionally designed slide templates that can help your slides be more engaging but not overwhelming.

**Suggestion 3: Make it BIG**

Use a minimum 18 point font size. This allows people to see from the back of the room and limits you to approximately 7 line of text (which helps you to meet the guideline in suggestion 1).

**Suggestion 4: Pictures can be worth a thousand words**

It is a good idea to sometimes emphasize your points with the use of a graphic object. Pictures can provide the appropriate context for an idea. They are more visually stimulating and more easily remembered. Don't use clip art for clip art's sake - try to tie the picture into the idea you are presenting. Pictures should add to the idea being presented rather than distracting. If you use pictures developed by someone other than yourself, be sure to cite the source for the picture somewhere in the slide and provide full source information in the notes section of your slide.

**Suggestion 5: Watch your Color Combinations**

Some background and foreground color combinations are difficult to read. For example, green writing on a yellow background or blue writing on a red background are difficult to make out. Stick to the standard combinations: black on white background, white on a blue background, yellow on black background. Be VERY careful about using Hokie colors as background or text for your slides.

† Adapted from [http://www.preston.k12.id.us/tutor/powerpoint/suggestions_for_slide_design.htm](http://www.preston.k12.id.us/tutor/powerpoint/suggestions_for_slide_design.htm); many other useful guidelines can also be found on the Internet as well.
Suggestion 6: Test your Slides
Run through the whole slide show to check for consistency of formats/colors/effects. Also, try your presentation out on the machine you will be using for your presentation. You will get a better idea how things will look and can make appropriate changes.

Suggestion 7: Pace your Delivery
A good rule of thumb for total number of slides is to have no more than one slide per minute of presentation time. Thus, for your pre-defense, you should try to limit your total number of slides to no more than fifteen. If your findings are more extensive than this, don’t try to present all of them. Instead, focus on typical findings, or highlight unusual or unexpected results.

Suggestion 8: Don’t Limit Yourself to Slides
Look for opportunities to introduce props, demonstrations, or other materials as part of your presentation while staying within your time limit. Remember that using multiple modes to deliver your information can engage your audience and further emphasize your points, but be careful not to distract attention away from your message.

Suggestion 9: Practice!
Take the time to go over your slides with a third party (preferably your advisor) before you submit them. This can help catch typos, identify extraneous content and potential pitfalls, and fill any gaps in your train of logic. You may also want to practice delivering your slides to a group of friends or peers who are also presenting. This will help you become more comfortable with your material and identify potential “hiccup” points in your delivery that you need to address.
Pre-Defense Poster Guidelines

In coordination with your pre-defense presentation, you will also be required to design, print, and present a poster of your independent research to the faculty and your peers in a common session during your last semester of residency at Virginia Tech. The pre-defense poster serves as a means of consolidating your findings into an organized and easily understood medium that is shared with others in the department. While not a part of your final deliverable, the poster offers good opportunity for feedback to ensure that your final defense goes smoothly. The purpose of this document is to provide guidelines for your poster to ensure it meets all requirements and effectively communicates your work.

**Deliverable**

A 24” x 36” solid board with written, graphical, and pictorial representation of your work securely attached.

**Considerations**

To be successful, a poster requires planning how you will depict specific information and providing text and graphics to capture your audience’s attention. The final material that goes on a poster is quite unlike what most researchers and writers generally write for other contexts. The limited space of a poster requires you to distill your ideas to their essence and then depict those in a condensed manner. The poster session requires much more attention to visual impact than writing. A title should be in large font, e.g., 72 pt; while headings significantly smaller, e.g., 48 pt.

A suggested method is to set PowerPoint to a 24”x36” custom size format and work up the poster. Once complete, convert to a PDF (download Cute pdf for free if you do not have a pdf conversion program) and then have Cardinal Blueprint print it out on photo paper and mount the work. The cost is estimated at $45.00.

**Content Focus**

The main areas your poster should cover are the following:

**Title** – Provide a title for your poster topic and your name.

**Statement of the Problem** – Provide in text format with graphical/pictorial support if possible. Limit this to fewer than 25 words.

**Research Question, Scope, and Limitations** – Clearly state your research question and hypotheses (if appropriate). Articulate any scope constraints, stipulations, or limitations to your research (2-3 sentences with Bullets).

**Research Design & Approach** – Describe your overall research design, including your population/sample for data collection, research steps and process, including methodology, for data collection and analysis (1 paragraph max). A graphic helps draw audience attention. For example, this often works best as a flowchart diagram.

**Methodology** – This describes your methodology and its appropriateness for your research design and approach (i.e., has previous work used such a methodology?).
Results – This can be graphical, text based, pictorial or a combination. The intent is to make an impact in a short visual format so think this one through. Supplementing with visuals will attract the audience’s attention. Bullet points are also appropriate.

Areas for Future Research – List and describe additional questions or areas for further work that have arisen from your project.

General Poster Design Guidelines
Similar to the presentation suggestions, please consider the following suggestions when designing your poster.

Suggestion 1: Keep it Simple
Capture the audience’s attention with graphics and words that count, not paragraphs of information that requires a lot of reading to properly understand.

Suggestion 2: Less is More (More or less)
Try not to clutter a poster with too much text, graphics, or color. Following the guidelines for the presentation here is good practice.

Suggestion 3: Make it BIG
As with your presentation, use a minimum 18 point font size.

Suggestion 4: Pictures can be worth a thousand words
As with your presentation, it is a good idea to sometimes emphasize your points with the use of a graphic object. Pictures can provide the appropriate context for an idea.

Suggestion 5: Watch your Color Combinations
As with your presentation, some background and foreground color combinations are difficult to read. Carefully review your color choices for readability.

Suggestion 6: Symmetry, then Abstraction
It is often easier to create a geometrical (symmetrical) layout first, and then take items within this layout and skew them or move them around the page in an abstract layout.

Suggestion 7: Consider Proportion
When mixing various elements to convey information, good proportion of these items within the context of the larger poster is important. For example, with text and images, consider how they line up and interact across the page. Consider further that the poster is a rectangle. If you produce your poster in landscape format, then you should include images with the same ratio of sides. The same idea goes for posters presented in the profile format (emphasize a vertical alignment with images).