Using Beamer

A Seminar

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Outline

Introduction

- An excellent resource for creating Beamer files is the Beamer User Guide, available from CTAN (Comprehensive TeX Archive Network).
- Click here to download the file.

Hello, World!

Your first presentation

- Create the Hello, World! Beamer presentation.

```
\documentclass{beamer}
\begin{document}
Hello, World!
\end{document}
```

Frames

- Each Beamer slide is a frame.
- Rewrite Hello, World! as a frame.

```
\begin{frame}{My First Slide}
Hello, World!
\end{frame}
```

A Title Page

- The tag `\titlepage` in a frame will create a title page.
- But it needs some info.
- Before `\begin{document}`, add
  - `\title{My First Beamer Presentation}`
  - `\author{John Doe}` (use your name)
  - `\institute{Hampden-Sydney College}`

Themes

- A Beamer presentation uses themes.
  - Presentation theme
  - Color theme
  - Font theme
  - Inner theme
  - Outer theme
- Add

```
\usetheme{Hannover}
\usecolortheme{crane}
\usefonttheme{professionalfonts}
```

Itemized Lists

- Add a frame with an itemized list to your presentation

```
\begin{itemize}
    \item Little Red Riding Hood
    \item Grandma
    \item The Big Bad Wolf
    \item The hunter
\end{itemize}
```

Itemized Lists

- Add an itemized sublist right after Grandma.

```
\begin{itemize}
    \item Eaten by the wolf
    \item Saved by the hunter
\end{itemize}
```

Enumerated Lists

- Change `itemize` to `enumerate`.

Mathematics

- Inline math expressions are delimited by `$...$`.
- Create a new frame titled `Math`.
- Create an itemized list including
  - `$x_1^2+x_2^2+x_3^2$`
  - `$\frac{\sigma}{\sqrt{n}}$`
  - `$\sum_{k=1}^n{k}=\frac{n(n+1)}{2}$`
  - `$\lim_{x\rightarrow\infty}{\frac{1}{x}}=0$`
  - `$\int_0^1{x^2\ dx}=\frac13$`

Mathematics

- Display math expressions are delimited by `$$...$$`.
- In your math slide, change every `$` to `$$`.

Theorems

- The theorem environment is used to display theorems.

  \begin{theorem}[*name of theorem*]
  Statement of the theorem
  \end{theorem}

- Create one more slide that contains the following theorem

Theorem (Mean Value Theorem)

Let f be a function that is continuous on $[a, b]$ and differentiable on (a, b). Then there exists a real number $c \in (a, b)$ such that

$$f'(c) = \frac{f(b) - f(a)}{b - a}.$$