```latex
\documentclass[hyperref={colorlinks=false},10pt]{beamer}
\usepackage{textcomp}
\usepackage{listings}
\usepackage{graphicx,float,caption,subcaption}
\usepackage{tikz,pgfpages}
\usepackage{amsmath,amsthm,amssymb}

\graphicspath{{./images/}}

\usetheme{Singapore} % Berlin
\pgfpagesuselayout{4 on 1}[a4paper, border shrink=5mm, landscape]
\usecolortheme{lily} %{wolverine} %lily
\usefonttheme[onlymath]{serif} % What does this do?
\newcommand{\mygreen}{\color{green!50!black}}
\newcommand{\myblue}{\color{blue}}
\newcommand{\myred}{\color{red}}
\xdefinecolor{titlecolor}{rgb}{.855,.647,.125}
\setbeamercolor{frametitle}{fg=titlecolor}
\setbeamerfont{frametitle}{series=\bfseries}
\setbeamercolor{math text}{fg=green!50!black} % Why is the math text greeen??
\setbeamercolor{normal text in math text}{parent=math text}
%\setbeamertemplate{navigation symbols}{} %gets rid of navigation symbols
%\setbeamertemplate{mini frames}{}
\setbeamertemplate{footline}[frame number]
\beamertemplateshadingbackground{blue!5}{yellow!10}
\setbeamertemplate{caption}[numbered]


\lstset{
basicstyle=\footnotesize\ttfamily,
language=R,
upquote=true,
breakatwhitespace=true,
columns=fullflexible,
keepspaces,
%numbers=none,
tabsize=3,
frame=bottomline,
framextopmargin=50pt,
showstringspaces=false,
extendedchars=true
}


\title{{\color{blue} \LARGE 550.400: Mathematical Modeling and Consulting\newline} }

\subtitle{{\color{red} \large In-Class Quiz 2 Guide Supplement} }

\author{
    {\bf{Instructor:}} \\
    Dr.~N.~H.~Lee\quad (\texttt{nhlee\@jhu.edu})\\
    \vspace{5pt}
}
\institute{JHU AMS 2012 FALL}

\date{\mygreen Last Compiled on \today}


\begin{document}

\begin{frame}[plain]
  \titlepage
\end{frame}

\begin{frame}
  \frametitle{Outline}
  \tableofcontents
\end{frame}

\section{Part 1}
\begin{frame}[fragile]
    \frametitle{Special care needed for listing computer codes}
    \begin{lstlisting}[caption=Git Commands,label=code:gitcommands]
```

```
git init .
git add .
git commit -mInitialCommit
git push origin master
    \end{lstlisting}
    Know how to reference Figure \ref{fig:hellvsheaven}
    using \verb+\ref+ and \verb+\label+.  Also, know how to
    cite using \verb+\cite+, e.g.~\cite{IMM1978}.
\end{frame}

\section{Part 2}
\subsection{Simple Route}
\begin{frame}[fragile]
    \frametitle{Figure of speech}
    \begin{figure}
        \begin{center}
            \includegraphics[width=0.5\textwidth]{hellvsheaven.png}
        \end{center}
        \caption{\texttt{hellvsheaven.png}}
        \label{fig:hellvsheaven}
    \end{figure}
    Know how to reference Listing \ref{code:gitcommands}
    using \verb+\ref+ and \verb+\label+.
\end{frame}

\subsection{Complex Route}
\begin{frame}[fragile]
    \frametitle{Weaving R and \LaTeX}
\begin{lstlisting}[caption=Using Sweave and tikzDevice,label=SweaveTikzMake]
<<echo=FALSE,fig=FALSE>>=
require(tikzDevice)
graphics.off()
tikz('test.tex',standAlone=FALSE,height=3,width=4)
plot(rnorm(100),type='l',main='',xlab='',ylab='')
dev.off()
@
\end{lstlisting}
\vskip0.25in
\begin{lstlisting}[caption=Using Sweave and tikzDevice,label=SweaveTikzInclude]
\begin{figure}
    \centering
    \input{test.tex}
\end{figure}
\end{lstlisting}
\end{frame}

\begin{frame}
    \frametitle{Weaving R and \LaTeX}
    After some ``cleaning up'', Listing \ref{SweaveTikzMake} and
    \ref{SweaveTikzInclude} can produce Figure \ref{fig:thanksSweaveTikZ}:
\begin{figure}
    \vskip-0.5in
    \centering
    \input{test.tex}
    \vskip-0.5in
    \caption{Thanks Sweave + TikZ}
    \label{fig:thanksSweaveTikZ}
\end{figure}
\end{frame}

\section{Part 3}
\begin{frame}[fragile]
    \frametitle{Math and etc.}
    \begin{itemize}
        \item Know how to take derivative of $\cos$, $\sin$ and $\log$:
\begin{align}
    \dfrac{d}{dx}\sin(x) = -\cos(x).\label{eqn:X}
\end{align}
\item
Know how to take anti-derivative of a third polynomial:
\begin{align}
    \int x^3+x^2+x\ dx &= \int x^3 dx + \int x^2 dx + \int x dx \label{eqn:Y} \\
    &= x^4/4 + x^3/3 + \frac{x^2}{2} +C \label{eqn:Z}
```

```
\end{align}
\item
Know to refer \eqref{eqn:X}, \eqref{eqn:Y} and \eqref{eqn:Z} using \verb+\eqref+ and
\verb+\label+
\item know how to get \verb+\eqref+ using \verb$\verb$
\item Finally, know how to get this itemized list
    \end{itemize}
\end{frame}

\begin{frame}[allowframebreaks]{Bibliography}
    \frametitle{Reference}
\bibliographystyle{plain}
\nocite{*}
\bibliography{biblio4QUIZ}
\end{frame}

\end{document}


List of Symbols Given:
frame
frametitle
bibliography
bibliographystyle
nocite
align
verb
label
eqref
ref
itemize
allowframebreaks
figure
lstlisting
centering
titlepage
tableofcontents
section
subsection
tikz
require
tikzDevice
input
fragile
itemize
item
int
sin
frac
dfrac
centering
cos
log
bf
caption
includegraphics
&
^
~
`
'
$
center
texttt
echo
print
fig
plot
dev.off
```