Final Project

- Scope is the same as three weeks of homework
  Luckily, you'll have three weeks to do it (counts as approximately 40% of your overall grade).
  P/NC students must pass both homework and final project segments separately.
- Must work on hardware!
  Bring your hardware to final exam to demo to TA (if not used during your presentation).
  iPad or iPhone or iPod Touch okay.
- Only iOS SDK code "counts"
  Don't waste your time writing server-side code
  Okay to "simulate" a server-side interaction to make your code demonstrable.

Final Project

- You'll be graded on proper use of SDK
  Hackery will count against you. Use good object-oriented programming technique.
  Must have at least one feature which was NOT taught in lecture/demo/homework assignment.
  Breadth is VERY important. Don't get stuck down a rathole.
  Only need to show depth in one or two areas. Breadth is more important.
- Aesthetics of your user-interface matter
  (although we do not expect professional graphic designer quality graphics)
  Sloppy layouts will be graded down.
  Lots of places to get graphics from on the internet.
- Be careful not to get side-tracked on non-iOS-code
  Some students in the past have spent 80% of their time working on
  stuff that didn't demonstrate their mastery of the class material.
  (e.g. preparing some large database or working on graphics too much, etc.)
  In the end, this is an iOS PROGRAMMING course, so we want to see
  how well you can program on this platform.

Final Project

- Presentation Quality Matters
  - A (tiny) portion of your grade will be related to the quality of your presentation.
  - Not okay to just put up a recording of you or of your application and say nothing.
  - Being able to make a live presentation is a valuable skill.
  - Practice your presentation before you show up.
  - You only get 2 minutes (strictly enforced), so make 'em count.
- Live demo?
  - All projects will be loaded onto the demo iPad2, so you can try to demo it live if you want.
  - Or you can use your own hardware (iPad2, new iPad and iPhone4S are only supported platforms)
  - Live demos are perilous, as you saw all quarter :).
  - You must, at worst, show screen shots of your application.
  - Keynote/Quicktime has some tools to "animate" screen shots (better than static).
  - Video (screen capture) of your app in action can be good also.

Sample Proposal

- Section 1: What am I doing?

  I will be building a "Shakespeare Director" application.

  It will have the following features:

  - A table for choosing a Shakespearean play from a list downloaded from Folio*.
  - A custom view for laying out the blocking of a chosen Shakespearean play.
  - A dialogue-learning mode.

  * Folio is an on-line database of all of Shakespeare's works.

  The custom view will be simple (only rectangles and circles with colors for stroke/fill, and text).

  Photos (from Camera or Library) can be put in rectangles in the blocking view.

  The blocking can change from line to line in the dialog (but no more often than that).

  Blocking can be stepped through, line by line, or played back in "time lapse" mode.

  The dialogue-learning mode will step through all the dialog line by line.

  Users can record the dialog for other parts (as prompts for them to learn their own part).

  iPad only.

Sample Proposal

- Section 2: What parts of iOS will it use?

  TableView for choosing plays and stepping through dialog

  Custom UITableViewCell prototypes (for dialog, including speaker, blocking instructions)

  Custom UIView with drawRect: for blocking

  Camera/Photo Library for putting images in blocking rectangles

  UITextField in a popover for text labels in the blocking view

  Popover for choosing stroke and fill color and shape in blocking mode

  Scroll view to zoom in/pan around in blocking view

  AVFoundation for record/playback of dialog

  NSTimer for "time lapse playback" of entire play with dialog/blocking linked

  Core Data to store the blocking and dialog

  - Play entity
  - Scene entity
  - BlockingElement entity
  - LineOfDialog entity

  Printing of blocking to AirPrint printers (this is the NOT COVERED IN LECTURE feature)

Sample Proposal

- What to notice about this sample proposal?
  - Clear description of what the application will do (section 1).
  - Clear list of the iOS features that will be used (section 2).
  - Lots of breadth (not necessarily that much depth in any one area).
  - Clearly delineates the NOT COVERED IN LECTURE feature.
  - Specifies platform (iPad only).
  - It's creative (it's not just Card Game or SPoT recycled).