DMD Senior Design Projects
CIS 497

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DMD Senior Design
CIS 497

Senior Design Project: Overview

- Goals:
  - The goal of this course is to provide an opportunity to define, design, and execute a project of your own choosing. Evaluation is based on your ability to select an interesting topic, communicate your objectives in writing and presentations, to accurately gauge what resources are required to complete your chosen task, and your ability to execute your plan effectively.

- Class Website:
  - http://www.seas.upenn.edu/~cis499/
    - *Soon to be ~cis497 when CETS moves it over.*
  - Please use blackboard to submit items

Senior Design Project: Overview

- 1. Amount of time spent relative to a 1CU CIS course load (~120 hours).

- 2. Programming requirements.

- 3. Something you could not have done when you started the DMD program.
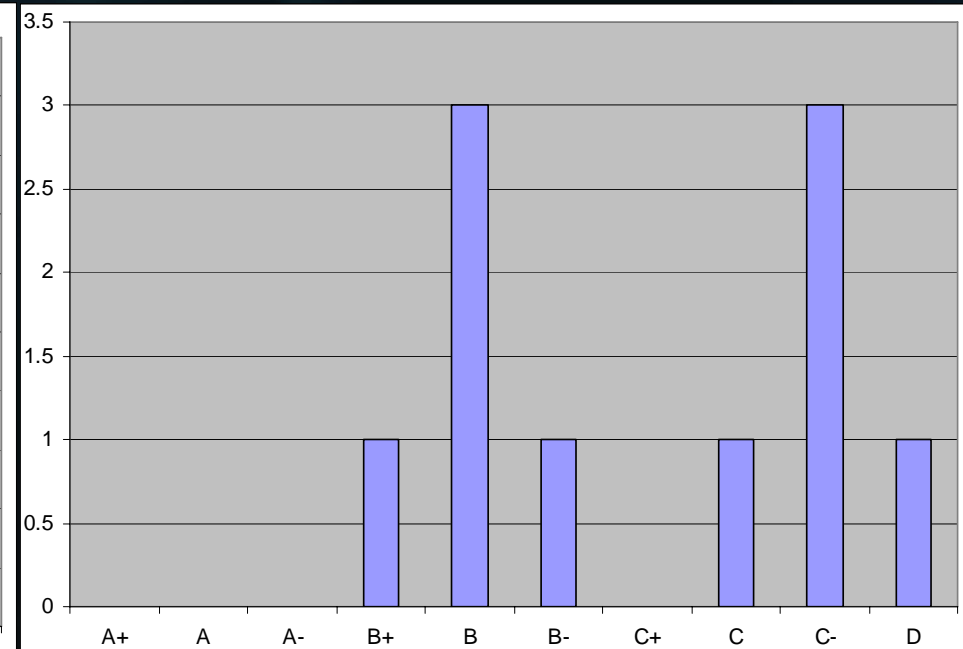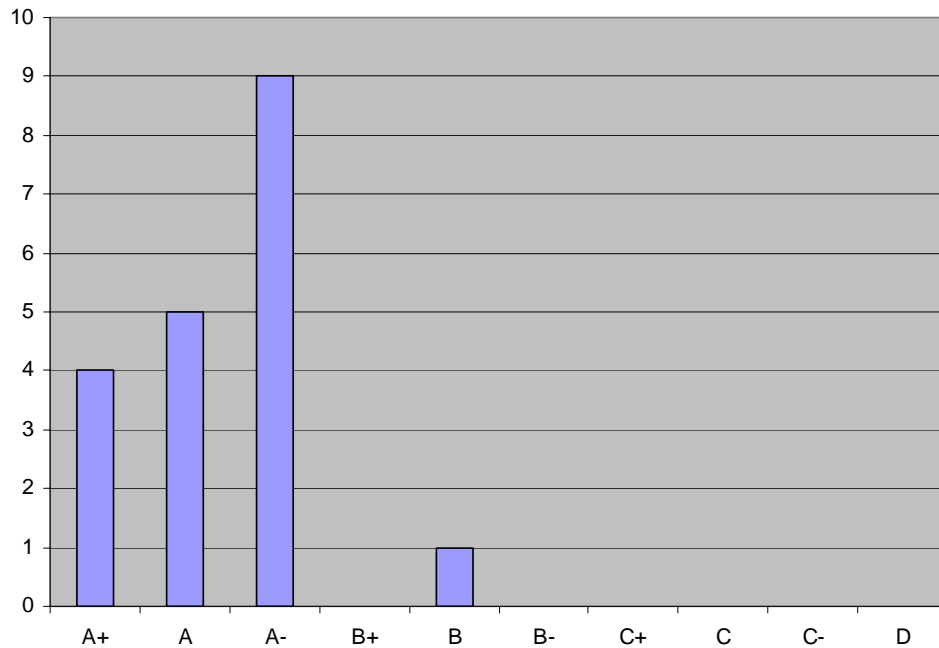
Senior Design Project: Overview

- 120 Hours is the starting point….

Senior Design Project: Overview

- Lab Access
  - Working on senior design qualifies for lab access
  - Photo copy ID and give to Joe

Benefit of working together.

Working in the lab
Meeting with Advisor
Blogging
Working above and beyond

Not coming in
Does own thing
2 blog posts a semester
Minimal effort

Senior Design Project: Overview

- Something that should lead on your 'demo reel'
  - Should be something *catchy* to grab someone's attention to the rest of your reel

Grading Guidelines

- 10% - Design Document
- 10% - Alpha Review
- 30% - Blog
- 10 % - Final Presentation
- 40% - Final Report / Code / Demo

In general we will look for the following criteria:

- <u>Soundness</u>: Are the claims technically correct and techniques and approaches reasonable for the problem?
- <u>Significance</u>: Is the problem addressed important and/or interesting?
- <u>Novelty</u>: Is there something new and interesting about the project (something that you could not have done before entering the program and utilizes your 4 years of learning)?
- <u>Clarity</u>: Is the presentation clear and concise, but complete enough for someone familiar with a graphics background?
- <u>Labor</u>: Have you spent roughly 120+ hours over the course of a semester researching, designing, programming, testing, and debugging something
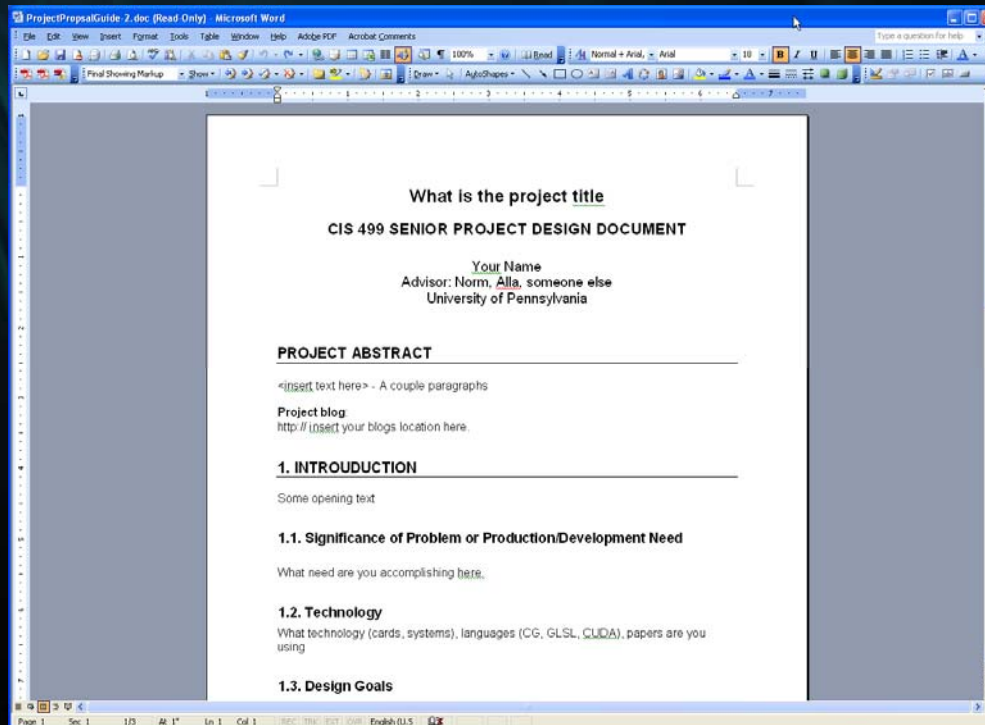
Senior Design Project: Projects

- Link on website to last years projects
  - Examples of Abstracts, blogs, propsals…
  - http://www.seas.upenn.edu/~cis499/

Project Requirements

- 1) Form an idea
  - Compose an abstract ~ roughly a half of page, describing in a high level what you plan to do.
  - Email / Gchat / Meet with Joe to help flesh out the idea
  - Joe will help you choose your advisor
  - Meet with Advisor (and Norm) to get approval of idea

- 2) Get a Project Advisor
  - You choose and get approval, or consult with Joe and Norm

- 3) Project Proposal
  - Design Document specifying deliverables
  - (Binary Grade) Approved by advisor
  - Send to Joe for comments and early feedback!
  - Template on website

Project Requirements

- 2) Project Proposal (cont…)

Project Requirements

4) Project Alpha Milestone
- Half way through the semester
- The alpha must show measurable progress, and the goals will be clearly defined in your Design Document.
- Small changes to the Design Document may be proposed at this time
- Formally Meet with advisor + Joe
- Extension of Design Document

Project Requirements

5) Blogs

    - Weekly progress reports

    - Purpose: provide updates on your current progress. This is a semester long project, and we expect a commitment of roughly 120 hours of work.

    - Mandatory!

    - Should be short, should contain at minumum

        - What have I done this week (bullet points)

        - What will I plan to do next week

        - Any problems or comments

    - Am I stuck, do I have any questions?

    - Audience of previous seniors, faculty, phd students, and industry experts will read these

- If done right, your conclusion and results for your final report will be a byproduct of the work you post here

- Use blogger to create it, send Joe the URL
    - http://www.blogger.com/

Project Requirements

6) Final Presentations: (TBA but around or on reading days) A brief 15-20 minute overview and demo/video of your project to faculty / students/ and invited guests

7) Final Report / Code / Demo: A final report is expected to be composed (pdf)
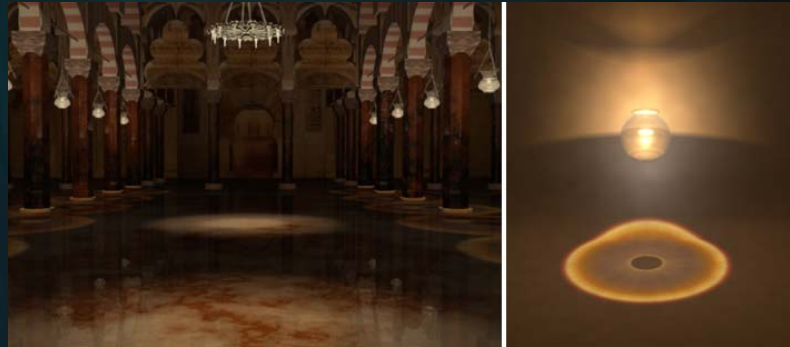
- This will extend your design document, filling out results and conclusions (again see templates and examples on website)
- Code will be submitted via blackboard and a live(ish) demo similar to CIS277 will be conducted during exam week (or before)

How do I find a project idea?

- Should be something you want to do and something that interests you
- Check out the 'Suggested Project List' for ideas
- Brainstorm with Joe or Norm
- 5 + 3 + 3 Rule on the project list
  - Circle 5 you like, cross out 3 you don't, add 3 new

Soft Starting Rules….

- Can I start early even though I am registering in the Spring?
  - Yes.
  - But you must follow the process.
  - Get idea approved, fill out petition form, **Norm must sign form!** , design document.

  - Nice to aim high, but the most realistic goal is to have your design document and dev environment ready by the start of the spring semester

"Do something we can all be proud of!"