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Office hours: Wednesdays 1pm-4pm
(or whenever I'm there)

- 4 weeks (2+2), 12 lectures
- 1 assignment
- Rough outline:
  - Scene organisation and rendering
  - Visibility culling
  - Scene simplification
  - Collision detection
  - …and some other stuff sprinkled in

So you want to write a game

- Some questions to ask for implementation:
  - What type of game is it?
    - Indoor (rooms, corridors) or outdoor (terrain)?
    - Map-based (2D, stacked 2D)?
    - Restricted movement or go-anywhere?
    - Restricted view or see anywhere?
    - Single player, multiplayer, networked?

So you want to write a game

- Some questions to ask for implementation:
  - What hardware is it for?
    - Console, desktop, PDA, cellphone?
    - Minimum/recommended CPU/gfx card?
    - Load from harddrive, CD, network?

So you want to write a game

- Some questions to ask for implementation:
  - What are the major components?
    - Indoor rendering engine
    - Terrain rendering engine
    - Mesh, texture, level loading and management
    - Scene management
    - Collision detection

So you want to write a game

- Sit down, start favourite development environment, and start coding
- WRONG!
- But it's fun, so do it anyway

So you want to write a game

- Use existing code, don't start from scratch
  - Game engines
  - Rendering libraries (OpenGL, Direct3D)
  - Windowing, UI, Audio libraries (SDL)
  - Networking libraries (RakNet, eNet)
  - Image and object loading libraries (Devil)
  - Basic algorithm libraries (STL)

So you want to write a game

- Some random tips:
  - Get it to render something early
  - Use lots of debug output
    - Enable/disable (disable when submitting assignment)
    - Use tab-delimited format to import in spreadsheet
  - Read forums (gamedev.net, opengl.org)
  - Programmer art sucks, but is usually free and available at all times
    - Raid free games for graphics, if allowed

"A great artist can make a bad engine look good.
A great programmer can't make bad art look good."
- me