The UCBUGG Animation Pipeline

Scripting
- Basic plot development
- Broad themes, overall message of piece
- Consider characters, settings, etc.

Storyboarding
- Draw out the entire piece shot by shot
- Determine the "focus" of each shot
- Keep in mind:
  - Character and its ...focus
  - Setting and its ...focus
  - Layout and its ...focus
  - Action and its ...focus
  - Pace and its ...focus
  - Lighting and its ...focus
  - Message and its ...focus

Modeling
- Work only one scene at a time in
  separate files to make life easier
- Create simple, stationary objects
  first, since you’ll get better as you go
- Once the style is established, create
  the main characters

Animating
- Rig and place characters in appropriate scenes
- Start with basic skeleton animations, then add
  secondary motions and nuances for "realism"
- Remember techniques like squash and stretch
- Don’t forget about the cameras, they’re important
- Create animatics, get criticism, tweak motion, repeat

Shading
- Consider the look and feel you’d like to portray,
  make sure all the textures add to the same theme
- Watch out for “swimming” textures, be sure to
  test render often to make sure
- Don’t waste too much time on small, distant objects
- Give EVERYTHING a bump map

Lighting
- Do somewhat in parallel to shading
- Keep in mind the mood of the scenes, things like
  time of day and location should influence
  lights’ intensity, color, direction, etc.
- Consider key, fill, and rim lights on characters
- Cheat. Take advantage of the virtual world we create

Rendering
- Make sure your editor understands your numbering scheme
- Use a lossless image format, you can always compress later
- Check periodically to make sure you’re not rendering
  a bunch of black frames
- Sit back, relax, play frisbee, I wouldn’t recommend trying WoW

Sounding
- Record any dialogue, match to final animatic
- Find or create any needed sound effects
- Find music, see if it can be edited to match
  dramatic events in video

Editing
- Stitch together the frames, attach the soundtrack
- Make sure everything meshes nicely
- Keep uncompressed originals somewhere safe

UC Berkeley Undergraduate Graphics Group