

### **Mechanical Clock Project**

Using the modeling techniques you have been exposed to in the last two Class sessions, your goal is to create a creative **mechanical clock** placed on a pedestal stand of your design.

Your mechanical clock must include the following:

- 1) a minute hand cog gear
- 2) an hour hand cog gear
- 3) an hour hand, a minute hand, and (optionally, a second hand)
- 4) a listing of 12 numbers for the face of the clock. These can be roman numerals or standard numerals
- 5) Include a **minimum** of three additional interlocking gears inside your clock

**This project is due at the beginning of Class 4.**

Consider lighting, shading and color. Use basic textures provided within Hypershade. The goal of this exercise is to get you familiar with many of the NURBS and polygon modeling concepts we discussed in class.



- 1.) **Make 4 renders**, each with the following specifications:

**2560** pixels wide  
**1600** pixels high  
**300** dpi  
**JPG** format

- 2) Save each render onto a separate 11" x 17" flatbook page. Use the FULL PAGE. Include **your name, CA3600, Spring 2010** and the **instructor's name**.

- 3) **Save your flatbook pages as Lastname\_clock1.jpg, Lastname\_clock2.jpg, Lastname\_clock3.jpg, and Lastname\_clock4.jpg**  
(continued...)

Save your Maya source file as **LastName\_Clock.mb** where LastName corresponds to YOUR last name.

Put this folder in the **Class 4 Due** folder in my drop-off box.

**Total possible points: 100**

**Grading Rubric shown below.**

	Excellent (4)	Good (3)	Average (2)	Poor
Concept 20 points	Creative and original, well planned. Supporting references for front, side, back views shown.	Solid ideas, but not particularly unique, some evidence of conceptual work. At least two references shown.	Ideas cliché or derivative. Very little originality present. No evidence of conceptual work. Weak reference material.	Weak or negligible attempt. References not shown.
Polygon Modeling 20 points	Project is modeled with excellent polygon flow. Edge loops are placed to facilitate accurate deformation when animated. • 3D models are constructed to accurately represent mechanical structure.	Project is modeled with good polygon flow. Edge loops are placed to facilitate deformation when animated. • 3D models are constructed to represent mechanical structure.	• Project is modeled with competent polygon flow. Edge loops are somewhat scattered. • 3D models are somewhat recognizable as mechanical structure.	Project is modeled poorly and demonstrates little to no understanding of polygon flow or edge loop placement. • 3D models are not recognizable and do not represent mechanical structure.
Technical Specs followed 20 points	-All technical specifications (file naming convention, project parameters followed) -11" x 17" template used with an attractive layout.	Minor misspelling or folder organization issues. Most of the project parameters were followed. -11" x 17" template used. Layout has minor issues.	Major misspelling or failure to adhere to major technical specifications. Few of the project parameters were adhered to. -11" x 17" template not used.	Didn't follow the project specifications at all.

Composition 20 points	camera angles for renders suggest depth (foreground, middle ground, background). Excellent balance between positive and negative space.	Solid composition, good contrast between positive and negative space, but composition lacks depth.	Composition is flat, too much negative space, poorly lit scenes.	Weak or negligible attempt
Lighting 20 points	Engaging use of color and lights to enhance the composition.	The lighting seems adequate but could be improved by a few additional lights, or by adjusting some of the existing lights, color intensity and/or position	The 3D scenes appear to be a bit too light or too dark.	Poor lighting and/or lack of any color theory application.

**Please note:** Zeros are recorded for projects not turned in.