

# **Workshop in 3D Computer Animation**

**Facilitator:** Thomas Tucker <[thomas.tucker@zu.ac.ae](mailto:thomas.tucker@zu.ac.ae)>

**Time:** 6:00–9:00 pm, December 8th, December 10<sup>th</sup>, December 12<sup>th</sup>, 2008

**Location:** CDI, Suite 2105 Winston Tower, 301 North Main Street, Winston-Salem NC 27101

The **Center for Design Innovation** is located in downtown Winston-Salem, in the high-rise Winston Tower between 3rd and 4th Streets. Limited free parking is available in the building's garage, and additional spaces are easy to find on the street and in nearby decks. Look for the elevators that go to floor 21.

**CDI contact:** Melissa Ryon <[melissa@@centerfordesigninnovation.org](mailto:melissa@@centerfordesigninnovation.org)> 336-413-5600

**REGISTRATION is required** by November 28<sup>th</sup>. Bring or send a check to the address above, for \$100.00, payable to Center for Design Innovation. The workshop is limited to 10 participants.

**PREREQUISITES:** No previous computer experience is necessary. Only Macintosh operating systems will be available.

**DESCRIPTION:** This workshop will introduce concepts and strategies of 3D animation. Participants will move directly into learning polygonal modeling techniques, subdivision modeling, organic modeling, industrial modeling, lighting and animation using Maya software. Workshop sessions will be geared specifically to help participants understand Maya and the Mac platform. Activities will include basic tutorials to practice technical skills, aesthetic decisions and creative solutions for commonly encountered projects.

**GOALS AND OBJECTIVES:** Participants will learn the fundamentals of Maya animation and the impact it has upon film, video, industrial and web design. Participants will develop a basic level of understanding of Maya software. This knowledge base will be enough for them to continue working on their own if they wish to.

## **Monday, December 8:**

- Learning the interface and hotkeys of Maya
- Creating polygon shapes (sphere, cone, cube, etc.)
- Bouncing ball animation
- Basic Dynamic with ball and pin animation
- Creating room design
  - Polygonal chairs with Boolean punch design
  - Polygonal tables
  - Grouping table and chairs with Locator
  - Creating animation fly through with camera
- Polygonal Robot Man

### **Wednesday, December 10:**

- Simple animation cycle
- Modeling simple forms
- Symmetrical Sub divisional modeling of alien face
  - Use of split polygon tool
  - Merge edge tool
  - Polygon smooth tool

### **Friday, December 12:**

- Blend Shape animation sequence with alien head with mp3 voice over
- IK chain of Character
- Walk cycle using the IK chain and learning baking techniques to create infinite walk cycles
- Creating particle systems
- Attaching particles systems to objects
- Rendering techniques with Mental Ray

### ***HOT KEYS:***

**w** = move

**e** = rotate

**r** = sizing

**apple + z** = undo (up to 20 times)

**alt + left mouse** = revolve

**alt + middle mouse** = move page image

**alt + right mouse** = in and out to image

**space bar (quick press)** = perspective windows (front, side, top, and perspective)

**space bar (long press)** = menu selection

**shift** = multiple selections

**right click (on object)** = vertice, face, edge, and object mode

**s** = keyframe

*Warning: Never click extrude face unless you have a single face selected*

### ***TEXTS:***

- *Learning Maya 4, Discover the Power of Maya* (includes interactive CD-ROM)
- *Inspired 3D Modeling and Texture Mapping* by Tom Capizzi

### ***WEBSITES:***

- <http://www.alias.com>
- <http://3dcafe.com>
- <http://www.gnomononline.com>
- <http://www.raph.com/3dartists>

### ***SUPPLIES:***

- Sketch book for personal notes
- Burnable CD-ROMs and DVD-R to back up your work