DTC 335 Digital Animation: Blender Workshop

Workshop Info:

Artist in Residence: Darin Dingman

Office Hours: Email Darin (darinedward72@gmail.com) or call (360-448-0981) to arrange a meeting time outside of class.

Workshop Description:

Learn Blender 3d while exploring techniques for: 3d modeling, texturing, animating, and story telling used by studios.

Workshop Goal:

The goal of this work shop is to create the cognitive ability to look at an object in real life, and understand how to replicate it in a 3d environment involving animation. As a side goal this workshop aims at covering the basics (in a technical sense) of how 3d fits into 3d animated films, video games, and compositing for movies.

Methodology:

This workshop will begin each day with a fast, "hands on" approach. Blender will be utilized each day to: 1. Help familiarize students of tools and techniques; 2. Learn about the world and reasoning behind 3d.

Attendance:

Ideally each day something new will be taught, due to time constraints, materials taught previously may not be able to be reviewed in the workshop, thus attendance is nearly essential.

Class Book/Text

There is no required book for this workshop. Documentation for most of the day's topics will be provided in advance, notes will always be helpful. For best results in learning it is suggested to take advantage of the documentation for blender available online at some of the provided resources.

Daily Syllabus

Week 1

9.29 – An Introduction to Blender

1. Syllabus (It's a guideline that's not set in stone)
2. A Quick history of Blender
3. The Blender Interface (and why they built it the way they did)
    a. Moving around in Blender
    b. Splitting windows in 3d
    c. Opening/Saving Files
4. Introduction to Box Modeling->Modeling a Basic Chair

10.1 – An Introduction to Modeling

1. Blender Open Movie: Elephants Dream
2. Intermediate Modeling Techniques->Modeling a Nightstand
3. Precision Modeling->Modeling a House off Blue Prints

Week 2

10.6 – Organic Modeling

1. Blender Short Memory
2. Introduction to the Poly by Poly technique
3. Modeling A Human Face (via box method)

10.8 – Introduction to Materials

1. Introduction to Shaders
    a. Adding Colors
    b. Changing the Materials Alpha (transparent Value)
    c. Material Properties
2. Introduction to Textures
    a. Blender's built in procedural Textures
    b. The Texture Node Editor
    c. Adding your own Textures from images
3. Introduction to Normal Maps
    a. How Normal Maps fake detail & depth
    b. How to Create a Normal map using Blender
4. Introduction to UV-Unwrapping
5. UV unwrapping an image and adding a texture to it.

Week 3

10.13 – Armatures and Rigging

1. UV unwrapping continued
2. Introduction to Armatures
    a. Adding Armatures
    b. Attaching a mesh to an Armature
    c. Weight Painting
    d. Shape Keys?

10.15 – Animating

1. Introduction to animating
    a. Creating a Bouncing Ball/Ipo Curve Editor
    b. Action Editor
2. NLA Editor

Week 4

10.20 Animating Physics

1. Big Bucks Bunny Open Movie
2. A quick look at Blender physics
    a. Particles
        i. Creating hair
        ii. Special Effects
3. Soft Bodies
4. Cloth Simulation
5. Water Simulation

10.22 Animating in Blender

1. Creating a Walk Cycle
2. Lip-syncing?
3. Constraints
4. NLA Magic
5. Rendering

Week 5

10.27 Making a Video

1. Video Sequence Editor
2. Introduction to the Blender Game Engine
3. Info on Blender Gaming
    a. Boro-Toro
    b. Yo-Frankie
    c. IPhone Games
4. Farewells