October 15, 2013

Robert Schuchman  
Instructor - 3D Animation and Design

Subject: Project details for 3D Animation and Design

1. Furniture Design – These projects initiate the student into the world of 3D modeling and its’ design possibilities. Using a few basic 3D shapes, the student assumes the role designer and creates an original set of table, chairs and lighting element. Real world applications are discussed: furniture design, interior design and industrial design are a few of the career pathways this project illustrates.
2. Special Effects - Beyond the obvious use of special effects in film and video games, these projects ask the student to think about special effects as a tool for communicating ideas and processes that might be used in science and industry: How show fluid flow through a piping system used in an industrial plant? What happens when an atom is bombarded by another atom? These are questions that can be visualized and answered using 3D special effects.
3. Transportation design – Southern California is home to perhaps the worlds’ finest automotive design school, Art Center in Pasadena. The transportation project gives the student a peak at 3D modeling and the possibilities of designing the cars of the future.
4. Architectural Design – 3D modeling has revolutionized the profession of architecture. 3D modeling is used for everything from simple interior renderings aimed to show clients what their room or office might look like to actual building plans that contractors use to build. The architecture projects in this course introduce simple modeling techniques used by architects, architectural illustrators and contractors.
5. Motionography – Motionography is term so new that it won’t be recognized by spellcheckers. Consider motionography as an area of graphic design that uses animated graphics to communicate ideas. As visual media grows so does the transmission of information by animation. These projects prepare a student with the communications skill set of the future. Words are not enough, pictures are needed: animated pictures. Motionographers use the skills of 3D animation to create stunning web pages to commercials. These projects have the student create an opening title sequence for a motion picture, matching imagery with content.
6. Simulations – What happens when a bridge is overloaded with too many cars and trucks? Simulations are physics based 3D animations that test the stress loads of materials among other things. Students can set up a simple situation: what happens when a two pound ball is dropped two meters and hits a piece of stretched silk fabric? 3D animation and simulation will calculate the physics and create an animation showing the results.
7. Character design and animation projects- These projects are designed to introduce the student to the primary element of storytelling and video gaming: character. Characters drive good stories. Games have come a long way since Pong. As video games become more sophisticated, using faster technology, well-conceived characters drive the gaming experience. Todays’ games involve characters with distinct personalities. 3D modeling demands that the modeler match the character. Writer and 3D modeler work together. The student produces a variety of characters, organic and inorganic, to match different storytelling situations and personality requirements.