



CHUA CHU KANG COMMUNITY CLUB IT Centre

35, Teck Whye Ave Singapore 688892



Science-Arts Animation

Objective:

The course will cover basic 3D modeling and animation. Students will learn how to do 3D design, graphic rendering, and animation for the simulation of some selected natural and scientific phenomena such as clouds, water, fireworks. Students will also learn how the special graphics effects are created in blockbuster movies

Course Outline

MODULE 1: Getting Started (3 hours)

In this module, students will learn the followings:

1. Overview of the Course
2. Introduction of Blender Interface
3. Viewport Configuration
4. Creating Standard Primitives
5. Creating Extended Primitives
6. Transformations: Move, Rotate and Scale
7. Viewing, Hiding, Selecting and Grouping Objects
8. Copies, instances and references

MODULE 2: Material, Rendering and Basic Animation (3 hours)

In this module, students will learn the followings:

1. Introduction to Materials and Maps
2. Working with Material Editor
3. Modifiers and Parameters
4. Animation: Auto Key and Set Key
5. Rendering Options
6. Case Study: Creating Photorealistic Sea Surface

MODULE 3: Particle System (3 hours)

In this module, students will learn the following:

1. Standard Camera Settings
2. Particle Systems: Basics, Presets
3. Space Warps: Overview and Creating
4. PF Source: Particle View and Operators
5. Case Study: Creating Hailstone Falling Effect

MODULE 4 Dynamics and Special Effects (3 hours)

In this module, students will learn the following:

1. Dynamics: Bouncing a Sphere
2. Reactor: Setup Rigid Body Collection
3. Reactor: Setup Cloth Collection
4. Revision of the Course