



## **Science-Arts Animation Course Using 3DS Max**

### **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, firework. Students will also learn how the special graphics effects are created with the blockbuster movies

### **Course Outline**

#### **MODULE 1: Getting Started**

In this module, students will learn the followings:

1. Overview of the Course
2. Introduction of 3DS Max User 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**

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**

In this module, students will learn the followings:

1. Standard Cameras 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**

In this module, students will learn the followings:

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