



**Dempo Charities Trust's  
DHEMPE COLLEGE OF ARTS & SCIENCE  
Miramar, Panaji-Goa**

**Blender**

**[2 Credits 30 hours]**

**Course Objective:**

The course is intended to visualise and design realistic 3D object models and to learn to animate them using Blender

**Learning Outcome:**

The students will be able to design realistic 3D objects and use them to create animated video clips.

**Course Content**

1. Introduction to 3D Visualization: Introduction, Visualizing 2D Views of a 3D Object, Visualize Shapes at Right Angle, Identifying Hidden Surfaces, Constructing a 3D Object from 2D Views. (5)
2. The Blender Interface: The Blender Screen. Window Types, The User Preferences Window, Open, Saving and Appending Files, Packing Data, Importing Objects (from other file formats), Moving Around in 3D Space, Window and Button Control, Creating Viewports. (5)
3. Creating Object and effects: Creating and Editing Objects and Materials and Textures. Working with Basic Meshes, Using Main Modifiers to Manipulate Meshes, Edit Mode-Mesh Editing. The Tool Shelf, Proportional Editing, Joining/Separating Meshes, Halo, Basic Texture Settings. Using Images, Movie, Displacement Mapping, Color, Stars and Mist, Lighting and Cameras, Render Settings, Ray-Tracing (mirror, transparency, shadows).(7)
4. Animation Basics and Adding 3D text: Basic Key-framing and Auto Key-framing, Working with the Graph Editor and Dope Sheet. Animating Materials, Lamps and World Settings, Rendering animation, Exporting animations to desired format, Blender 3D Text Settings and Converting to a Mesh. (7)
5. Creating the Mini Project (6)

**References:**

1. James Chronister, "Blender Basics Classroom Tutorial Book", cdschools.org 4<sup>th</sup> Edition.
2. Blain John M. The Complete Guide to Blender Graphics (English, Paperback, Blain John M.), Taylor & Francis Inc.

*Dr. Anil  
Ms. Supra Nair*

SHORT TERM COURSE ATTENDANCE SHEET

Name of the Course : Blender

Topic : Blender

Class :- FYBSc

Batch :- F4 BSc

Lecture No Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Name of Student																														
Aaron Felix Pires	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Aashy Avinash Bhosle	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Savitribi Chavan	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Poothana Durbhakar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Nihal S. Panicker	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Riya Damodar Nolk	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Sakaj Santosh Hamalkar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Siddharth Bhattacharyya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Prateek Gireesh Fernandes	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Bhishmi Kateri Ghosalkar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Bhakti Abbas Anvita Nolk	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Fakar Sub Shirohi	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Ruchika Marius	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Charana Achuk Mazaitha	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Omkar Vinayak Nulkarni	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Ravani S.A. Sanyalkar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Savina Maria Cabral	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Sharvani Jai Krishna Nolk	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

Name & Signature of the Teacher

Ms. Shipra Nolk

In-Charge

Ms. Shipra Nolk



**Dempo Charities Trust's  
Dhempe College of Arts and Science  
Panaji, Goa**

1. Name: **Blender**

Class: FYBSc Computer Science

Number of Students: 18

Fees charged: Rs 1500 per student

Duration: 40 hours

Aim: To learn basics of 3d animations.

Conducted from: 4th January 2017 to 30<sup>th</sup> January 2017

Instructor: Mr Saurabh Naik

The course includes creation of basic 3d objects, drawing, scaling, camera movements, rendering animation. The course was conducted for FYBSc Computer Science students for the academic year 2016-17. The course of 40 hour duration was conducted during January 2017.