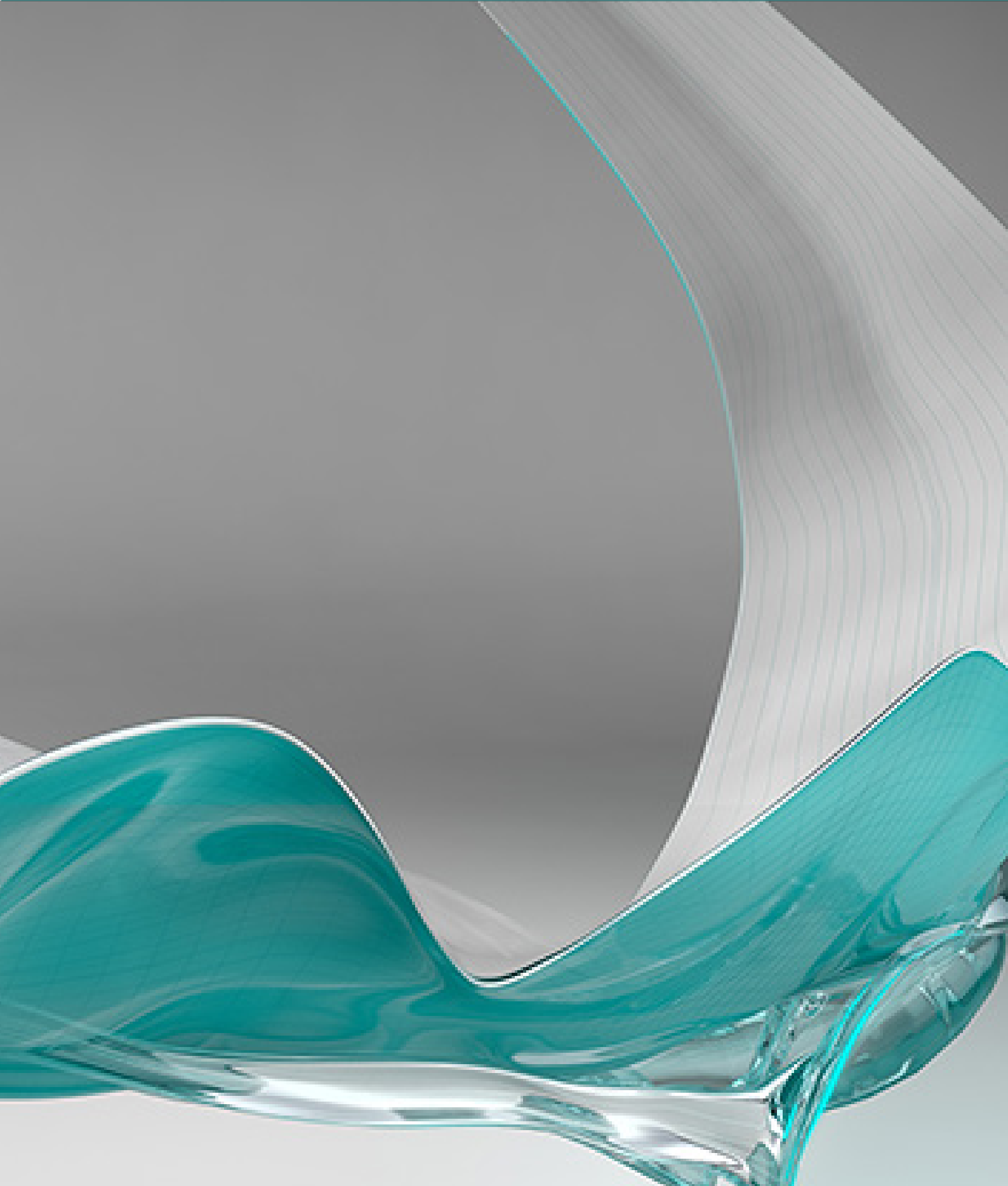




# Maya Essentials Course Outline





Duration: 3 Days

**Related Courses:**

Lighting, Audio, Premiere Pro, After Effects, Audition, Final Cut Pro

**Course Overview and Objectives**

Participants will learn how to create work through the fundamentals of animation and 3D with Maya. This course will get you started on modelling with more consistent and professional results. We will explore NURBS, meshes and polygonal techniques to really help your production shine. We'll touch on sculpting, organic surfaces, reflectivity and tie it all together with movement and animation.

**Pre-requisites:**

A understanding of your operating system

## Autodesk Maya Essentials Course Outline

### Overview of Maya

- Understanding the Maya interface
- Setting up files and Maya projects
- Configuring viewports
- Customizing the interface
- Navigating the Maya workspace
- Using the hotbox and marking menus
- Selecting objects
- Using the Move tool
- Rotating and scaling objects
- Working with pivots
- Understanding the Channel Box
- The Attribute Editor

### Maya Scenes

- Organizing Maya Scenes
- Working with the Outliner
- Dealing with hierarchies
- Object groups
- Exploring Hypergraph
- Hiding and showing objects
- Working with layers
- Working with selection masks

### Working with Polygons

- Creating Polygonal Models
- Differences between NURBS and polys
- Selecting polygonal components
- Using Soft Select and reflection
- Sculpting with the Sculpt tool
- The Combine and Separate commands
- Working with subdivision surfaces

### Working with Meshes

- Working with edge loops
- Using Edge Flow for smooth geometry
- Reorienting geometry using Spin Edge
- Drawing detail with the Connect tool
- Mirroring geometry
- Modeling with nonlinear deformers
- Modeling with lattices

### NURBS-based Modelling

- An Introduction to NURBS modeling and editing
- Using NURBS primitives
- The NURBS curve tools
- Using NURBS Revolve



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### Bullet Physics

Create realistic rigid and soft-body simulations



### Maya Fur

Create realistic fur, short hair, wool, and grass.



Superior Animation Tools  
Keyframe, procedural, and  
scripted animation tools.

### Cleaning up NURBS

- Refining NURBS Models
- Extracting NURBS curves from surfaces
- Open/ Close curves and surfaces
- Creating curves on a surface
- Projecting curves on surfaces
- Trimming NURBS surfaces
- Using fillets to connect surfaces
- Converting NURBS to polygons

### Using Materials

- Creating Materials
- Overview of Maya renderers
- The basics of materials
- Creating and applying maps
- Using bitmaps as texture
- Working with the Hypershade window
- Using the Ramp material
- Displacement and bump maps
- Mental ray materials

### Using Textures

- Applying Textures
- Texture mapping
- Projecting textures on surfaces
- Applying multiple materials
- UV mapping
- The UV Texture Editor

### Rendering your Scene

- Render Settings
- Lights and lighting types
- Rendering shadows
- Camera basics
- Depth of field
- Motion Blur
- Reflections and refractions
- Matching lights and shadows to images
- Batch rendering

### Animating in Maya

- The animation interface
- Set Key
- The Graph Editor
- The Dope Sheet
- Animating objects along spline paths
- Ghosting animation
- Animation playback using Playblast
- Creating animation cycles