**City Honors 3D Animation/Modeling Program**

**Primary Programs – Sculptris, 3D Max**

* Categories – PowerPoint
	+ Game Assets, Landscapes, Architecture, Consumer Product, Simulation, Fine Art, Technical Illustration, AND Characters,.

**Introduction to Modeling Techniques and Basic Skills**

* High Poly Organic Modeling using Sculptris
* 8 Basic 3D Max modeling techniques (Online)
	+ Assembling Primitives
		- Basic Skills – Select, Move, Clone, Delete
		- Materials
	+ Polygon Modeling
	+ Extruding
	+ Lofting
	+ Booleans
	+ Lathing
	+ Rendering Splines
	+ Scattering
* 6 Basic Animation Techniques (Online)
	+ Key frame
	+ Path Constraints
	+ Physics
	+ Particle Systems
	+ Forces
	+ Warps

**Semester Modules**

* Portraits (Sculptris)
	+ Original/Freeform
	+ From reference material
* Common Objects
	+ Design a rocking chair
	+ Design the ultimate cupcake
* Terrains
	+ 3D Map Generator Terrain Plugin
* Special Effects
* Products
* Characters
	+ Animating with Mixamo
* Final Project – Character Based, FX Based, Landscape Based.

**Week 1-2 ASSIGNMENT 1** – **Create three complex character portraits using Sculptris**. **One will be used as the face in the next project (1 week) – Homer Simpson, Vampire, Animal of choice.**

1. Intro to SoCalROC Classroom Rules
	1. Agreement Forms
	2. Computer Procedures – passwords, file storage system and back up
2. Programs overview (find videos for each of these and/or make PowerPoints)
	1. Sculptris
	2. 3D Max
	3. Mixamo
	4. Unreal 4
	5. PhotoShop
	6. AfterFX
3. Sculptris – High Poly Organic Modeling
	1. Demonstration of simple portrait modeling
	2. Adding eyes, masking etc.
	3. Student Practice – not to be graded
		1. Create a simple character faces with eyes, nose, mouth and ears.
	4. Facial Anatomy PowerPoint on overhead –
	5. Poster –Anatomy and variety
	6. Demonstration of complex portrait modeling
	7. Painting
4. Begin Assignment 1

**Week 2-4 ASSIGNMENT 2 – Model examples of all 8 Modeling Techniques**

1. 3D Max – The Eight Basic Modeling Techniques
	1. 3D Geometry – Simple Assembling
	2. Compound Geometry
		1. Booleans
		2. Scattering
	3. Modifiers for 3D Geometry
	4. 2D Shapes
		1. Extruding
		2. Lathing
		3. Lofting
		4. Rendering Splines
	5. Pre-mades – Door, Stairs, Trees etc.
2. Rendering Skills

**Weeks 5-7** **ASSIGNMENT 3 – Model an interior scene using all techniques**

1. Materials
	1. Practice – Create a of spheres with all types of materials
		1. Metallic
		2. Shinny
2. Camera
3. Lights