**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