# ART A249: DIGITAL SCULPTURE WITH ZBRUSH

| Item | Value |
|---|---|
| Curriculum Committee Approval Date | 12/08/2021 |
| Top Code | 101300 - Commercial Art |
| Units | 3 Total Units |
| Hours | 108 Total Hours (Lecture Hours 27; Lab Hours 81) |
| Total Outside of Class Hours | 0 |
| Course Credit Status | Credit: Degree Applicable (D) |
| Material Fee | No |
| Basic Skills | Not Basic Skills (N) |
| Repeatable | No |
| Open Entry/Open Exit | No |
| Grading Policy | Standard Letter (S) |

## Course Description

This is an introductory course in digital sculpting introducing the student to the Pixologic ZBrush 3-D Digital Sculpting application. The ZBrush application can simulate traditional sculpting in clay by using a stylus and tablet to create high resolution digitally sculpted models. These models are often used in creating illustrations and 3-D models for film, game, and animation productions. Transfer Credit: CSU.

## Course Level Student Learning Outcome(s)

1. Create digital sculpted artwork to be used in the creation of illustrations and entertainment art that clearly illustrates the student's solutions for completing assignment guidelines.
2. Design solutions to 3D modeling assignments for illustrations and entertainment art using digital media sculpting software combined with digital media tools

## Course Objectives

- 1. Demonstrate operative skills with the Z-Brush software application and be able to use the digital sculpting interface upon external digital drawing devices.
- 2. Interpret artistic reference material and orthographic drawings into a digital sculpting format while devising appropriate solutions for the early creation of digital sculpted objects.
- 3. Analyze, differentiate, and operate numerous control options of the 3D animation sculpting software Z-Brush from Pixelogic.
- 4. Analyze visual and verbal assignment descriptions, arriving at an understanding of spatial relationships within the software three dimensional space.
- 5. Demonstrate how to setup a basic project for ZBrush sculpting.
- 6. Practice how to use basic brushes for sculpting.
- 7. Demonstrate how to change the color and material of your mesh.
- 8. Add final materials and PolyPaint to render your ZBrush scene.
- 9. Export a final 3D image that you will be able to edit at a later stage in a 2D software like Photoshop.

## Lecture Content

Importing a mesh Using primitives Working with subdivision levels Sculpting with brushes Applying materials Controlling scale Creating and combining polygroups Using subtools Creating insert mesh brushes Creating voxel models with Dynamesh Editing a mesh with the ZModeler Brush Working with ZRemesher Adding and removing subdivision levels Moving, scaling, and rotating objects Painting on a model Using texture maps Creating custom brushes Exporting ZBrush projects Working with other software

## Lab Content

Introduction to Digital Sculpting 3D with Z-Brush  Getting Started  Edit Mode  Initialize ZBrush Subdividing 3D Brush Basics  Curve Method Navigation in Edit Mode  Tools, Projects and Documents:  Alpha Palette  Dynamesh  ZSpheres Adding Complexity to a Character FiberMesh Micro Mesh Noisemaker  Painting Poly Paint Projection Master  Spotlight Posing characters Trans Pose master Render Settings Lights Light Caps

## Method(s) of Instruction

- Lecture (02)
- Lab (04)

## Instructional Techniques

DemonstrationObservationIndividualized instructionStudent presentationsSupervise student use of equipmentShow instructional videosLectureDiscussionFeedback/evaluation of skills practice

## Reading Assignments

Students will read on average 1-2 hours per week from online resources in Canvas as well as other online tutorials.

## Writing Assignments

Students will research assignments and provide analysis and reflection on content.

## Out-of-class Assignments

Students will continue design and modeling assignments outside of class, and are expected to spend 1-2 hours per week on out-of-class assignments. Student will have access to the OCC Art/DMAD digital lab during their scheduled lab time and during open/arranged lab times.

## Demonstration of Critical Thinking

Analyze visual and verbal assignment descriptions, arriving at an understanding of spatial relationships within the software three dimensional space. Discriminate between spatial representations suited to different expressive goals.

## Required Writing, Problem Solving, Skills Demonstration

Complete assigned projects, creating 3D sculpted representations of objects in the Pixelogic Z-Brush software application space.

## Eligible Disciplines

Commercial art (sign making, lettering, packaging, rendering): Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

## Textbooks Resources

1. Required Eric Keller. Introducing ZBrush, 3rd Edition ed. Sybex, 2012 Rationale: This book will be a good supporting reference for students wanting further information by one of the leaders in ZBrush education.

## Other Resources

1. Instructor identified videos and instructional tutorials will be listed in syllabus. 2. Instructor created videos and instructional tutorials will be listed in syllabus.