GAME 191: PHOTOSHOP FOR GAME ART & ANIMATION

Citrus College Course Outline of Record

Heading	Value
Effective Term:	Fall 2024
Credits:	3
Total Contact Hours:	108
Lecture Hours :	36
Lab Hours:	72
Hours Arranged:	0
Outside of Class Hours:	72
Total Student Learning Hours:	180
District General Education:	C1. Arts
Transferable to CSU:	Yes
Transferable to UC:	Yes - Approved
Grading Method:	Standard Letter

Catalog Course Description

Introduction to Adobe Photoshop including mastery of digital image editing and techniques for painting custom textures for game art and animation. Use of Layers, Layer Styles, Adjustment Layers and Blending Modes. Adjusting and correcting colors for textures and images to be used in 3D modeling software such as Autodesk's Maya and in game engines such as Unreal Engine or Unity, as well as an introduction to all aspects of Adobe Photoshop for use in digital image editing. 36 lecture hours, 72 lab hours.

Course Objectives

- Mastery of Photoshop Fundamentals as it pertains to understanding and utilizing Layers/Channels/Paths.
- Analyze and understand basic Color Theory and its use in Game Environments and Character Design & Development.
- Understanding Design principles with emphasis how they create an attractive composition in background designs for Game Art.
- Analyze Game Ready Digitally Painted assets to prepare and optimize assets for use in Game engine.
- Ability to create Seamless tillable texture for use in Game Engine or Rendering for animation.

Major Course Content

1. Photoshop Core Concepts
    a. Navigation and interface
    b. Toolbars and customization
    c. Layers
    d. Channels
    e. Paths
2. Adobe Painting Techniques
    a. Hand Painting
    b. Texture Creation
    c. Image Manipulation
    d. Brushes Customization and Creation
3. Selection Concepts
    a. Quick Mask and Quick Selection Sets
    b. Selection Conversion to Masks
    c. Selection and Mask editing
    d. Saving and Loading Selections
    e. Selection Conversion Techniques
4. Tools
    a. Move
    b. Selection
        i. Marquee
        ii. Ellipse
        iii. Lasso
        iv. Magic Wand
    c. Crop
    d. Eye Dropper
    e. Brush
    f. Paint Bucket
    g. Eraser
    h. Type
    i. Clone & Pattern Stamp
    j. Healing Tools
5. Pen Tool
    a. Paths
    b. Points
    c. Line Segments
    d. Bezier Curves
    e. Path Conversions

Lab Content

Practicum Layers

1. Blending Modes
    a. Subtractive
    b. Additive
    c. Hue
    d. Saturation
2. Opacity
    a. Layer Opacity
    b. Fill Opacity
3. Adjustment Layers
4. FX Options
5. Layer Links

Practicum Color Modes

1. Bitmap
2. Greyscale
3. Duotone
4. Index
5. RGB
6. CMYK
7. Lab Multichannel

Practicum Color Theory

1. Greyscale
2. Monochromatic
3. Primary
4. Secondary
5. Complimentary
6. Analogous

Practicum Design Elements

1. Line
2. Shape
3. Form
4. Color
5. Texture
6. Space
7. Form
8. Light
9. Texture
10. Balance

Practicum Texture Maps

1. Diffuse Texture Map
2. Bump Maps
3. Normal Maps
4. Opacity/Alpha Maps
5. Displacement Maps
6. Illumination Maps

Suggested Reading Other Than Required Textbook

Online resources, concept art techniques sourced in library or online

Examples of Required Writing Assignments

One to two page paper on preferred gaming programs, personal journals.

Examples of Outside Assignments

Create Original seamless textures for game models.

Instruction Type(s)

Lab, Lecture

IGETC Area 3: Arts and Humanities

3A. Fine Arts