

VCIL-2540: 3D STUDIO

Cuyahoga Community College

Viewing: VCIL-2540 : 3D Studio

Board of Trustees:

February 2019

Academic Term:

Fall 2020

Subject Code

VCIL - VC-Illustration

Course Number:

2540

Title:

3D Studio

Catalog Description:

Advanced 3D modeling, 3D motion graphics and 3D animation using industry standard software. Course builds upon sequential 3D courses to provide advanced platform for custom 3D design, illustration, visualization, simulation or animation projects. Develop projects to satisfy audience/client, target market and production needs.

Credit Hour(s):

3

Lecture Hour(s):

1

Lab Hour(s):

4

Requisites

Prerequisite and Corequisite

VCIL-2040 3D Motion or concurrent enrollment, or VCIM-1400 Game Design II, or departmental approval.

Outcomes

Course Outcome(s):

Implement design strategies and technical production to deliver 3D visualization project according to preproduction plans.

Objective(s):

1. Apply elements and principles of design/animation to satisfy the requirement of the visual communication project.
2. Plan project requirements around client needs, resources, time and budget.
3. Develop preproduction, planning and concepts for 3D design or animation and present for client review.
4. Design and build replica or custom 3D models for use in 3D studio project.
5. Design and apply custom textures through use of illustration, photography and other methods of content creation.
6. Prepare still images or sequence for use in finished media presentation.

Methods of Evaluation:

METHODS OF STUDENT EVALUATION MAY INCLUDE ANY OF THE FOLLOWING:

1. Written assignments
2. Laboratory exercises
3. Case studies
4. Exams
5. Quizzes
6. Projects
7. Presentations
8. Portfolio

Course Content Outline:

1. Review of 3D modeling and animation concepts
 - a. Use polygonal modeling to illustrate required 3D content
 - b. Design and apply custom textures to 3D models
 - c. Apply basic lighting strategies to illuminate scene
 - d. Implement camera and object animation to satisfy design requirements
2. Design
 - a. Identify client/project goals
 - b. Research successful contemporary solutions to 3D design problem
 - c. Plan project according to client needs and resources
 - d. Illustrate concepts in 2D and/or 3D using analogue tools
3. Develop
 - a. Build 3D models based on concept, sketch or reference image
 - b. Implement model hierarchy and joint relationship to prepare rig for animation articulation
 - c. Design environment appropriate for project specification
 - d. Use camera to compose and/or animate model
4. Deploy
 - a. Render to technical specification appropriate for delivery/broadcast method
 - b. Integrate 3D rendering into appropriate post-production environment
 - c. Modify 3D rendering for corrections and compositing
 - d. Perform edit and compression of 3D rendering for use in finished media presentation to meet client/audience communication needs

Resources

Tickoo, Sham. *MAXON CINEMA 4D R19 Studio: A Tutorial Approach*. CADCIM Technologies; 6 edition, 2018.

Resources Other

1. <http://www.cgsociety.org>
2. <http://www.simplymaya.com> (<http://www.simplymaya.com>)
3. <http://www.c4dcafe.com>
4. <http://unity3d.com/>

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