Course Information

Number and title: Arch 490 - 02 - Real Time Rendering Engines In Arch

Professor info: **Alphonso Peluso**
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Prerequisite(s):   DC2 or permission from the department

**Required Text and
Materials:**   All tutorials for in class learning
will be provided on the portal

**Tutorials and Class
Assignments Location:**   **http://alphonsopeluso.com** (or other)

Class Schedule: **See link above**

Course description: The course explores the integration of cutting-edge real-time rendering technologies into the field of architecture. With the advent of powerful hardware and software, architects now have the ability to create immersive and interactive visualizations of their designs in real time. Throughout this course, students will delve into the fundamental principles, techniques, and tools used in real-time rendering engines to create high-quality and photorealistic architectural visualizations. The course emphasizes practical skills and hands-on experience, allowing students to develop proficiency in utilizing real-time rendering engines to enhance architectural design processes

Course goals: Students will build a 3-D model and produce
renderings, animation, and VR of a current studio project

Principals to keep in mind as you learn
and explore digital visualization:
- Tell a Story
- Create a sense of drama
- Develop a style
- Present an image not found in reality
- Maintain flexibility and balance

Software: Rhino / Lumion
Adobe Photoshop
Adobe Premiere

Grading: Each class students will submit completed class assignment(s) showing their progress and understanding of basic concepts. Final grade is based on the four percentages below:

**10% for attendance
(attendance is mandatory, signing in for someone and/or 3 unexcused absences will result in a failing grade)**

20% for Homework assignments

30% for Midterm

40% for the Final

Please note: attendance**,** completion and submission of all course work on time is the minimum requirement and does not mean that you will receive an A grade. All grades are subject to the grade judging criteria below:

Grades are determined by judging 4 different categories:

Legibility - Make sure that your assignments are clear and easy to read. Use spell check (all software apps have it). Your shared folder should be neat and organized with assignment #'s labeled **Firstname_Lastname_A0#**.

Composition - In addition to being legible you should apply all the concepts of composition that you have previously learned. Some suggestions including but not limited to are: renderings should tell a story, cameras and lighting should create a sense of drama, assignments should include title and drawing names, all text should be placed with good layout & scale.

Style - This is an expansion of Composition. Create your own style. Some style elements including but not limited to are: rendering style, lighting, camera angles, material representation, font color, font type, background color, title bar and rendering style

Innovation - Expand upon the skill sets taught in the course and apply them to the assignments. Research additional learning resources found on the Internet and in Libraries. Create your own way to apply the software tools and concepts discussed in the course.

Students with Disabilities Statement:

Americans with Disabilities Act (ADA) Policy Statement
Reasonable accommodations will be made for students with documented disabilities. In order to receive accommodations, students must obtain a letter of accommodation from the Center for Disability Resources. The Center for Disability Resources (CDR) is located in 3424 S. State St., room 1C3-2 (on the first floor), telephone: 312.567.5744 or disabilities@iit.edu

Class Schedule

Class One:
May 14

Cameras _ Rhino / Lumion Workflow
Lumion Sunlight

Class Two:
May 16

Lumion LiveSync _ Real Skies (HDRI images)
Material Basics _ Alpha Channel

Class Three:
May 21

Lumion Basics _ Landscape Editing
Adding Entourage Assets
Photoshop Workflow Secrets

Class Four:
May 23

Lumion PBR Materials and Texture Maps
Effects Stack
Photoshop Workflow Secrets

Class Five:
May 28

Lumion Lighting _ Glass Material
Photoshop Glass Reflections
Open Street Maps

Class Six:
May 30

Work in Class

Class Seven:
June 04

Midterm Presentation

Class Eight:
June 06

Lumion Animation Basics 1 _ Camera Path Presets
Orbit Path _ Dolly Shot _Pan/Tilt _ Follow Object

Class Nine:
June 11

Lumion Animation Basics 2 _ Record Key Frames
Advanced Move _ Mass Move _ Wind _ Birds
Adobe Premiere Basics

Class Ten:
June 13

Daylight, Water, and Weather Animation

Class Eleven:
June 18

Work in Class

Class Twelve:
June 20

FINAL PRESENTATION

*note: course syllabus & schedule are subject to change