

ASSIGNMENT DESCRIPTION

Landscape Architecture Digital Design and Representation

INSTRUCTION OF ASSIGNMENT #1

PROJECT DESCRIPTION: In this assignment, you will learn how to digitalize your design drafts. This project will help you to create a new set of graphics for design work. At first, you will be introduced to Autodesk's AutoCAD software as a design and drafting tool to draw and modify the plan view graphic in the 2D interface. You will begin with the "Forms Combined" project, which you did in Basic Design I. This project would help you to practice the geometrical forms and figures such as squares, circles, lines, and arcs, as well as colors and textures. Then you will compose your ultimate poster using Photoshop, Illustrator, and InDesign.

LEARNING GOALS:

- Utilize the power and precision of AutoCAD as a drafting and design tool.
- Apply basic CAD concepts to develop and construct accurate 2D geometry through the creation of basic geometric constructions.
- Create, manipulate, and edit 2D drawings and figures.
- Apply elements such as layers, dimensions, drawing formats, and 2D figures in projects.
- Distinguishing between pixel-based and vector-based environments and understanding the benefits and limitations of both.
- Manipulating basic commands in Illustrator and Photoshop, including – but not limited to – photo correction, selection tools, stamp tools, pen tools, color selection, texts, and paragraph functions.
- Ability to create basic layouts, with attention to information hierarchy, color palette, and balance between positive and negative space.

PROJECT PROCEDURES:

Part I: Forms Combined Design

If you had the "Basic Design I" Fall 2022, you could skip this part and use your Form Combined Design from last semester; if NOT, you could design your project or use the *Form Combined Examples* on Canvas.

Follow the design principles below and use sketchbooks to play around with some different ways to graphically represent each of the eight principles.

- | | |
|--------------|-------------|
| • Contrast | • Emphasis |
| • Alignment | • Balance |
| • Repetition | • Symmetry |
| • Proximity | • Gradation |

Start representing selected design principles (1-3) using geometric shapes and figures:

1. Rectangle or Square
2. Circle
3. Line or Curve (arc)

Part II: AutoCAD (Exercise I)

- Please take a picture of your drawing and scan it (or take photos) to import and scale it in AutoCAD.
- Practice drawing and modify, and other commands illustrated during class
- Trace the design using draw and modify commands.
- Export the Drawing to PDF and submit it to the Box folder *Exercise 1-AutoCAD Basics*.

Note: Detailed procedures will be illustrated in the class.

Part III: Photoshop (Exercise II)

- Import the PDF file into Photoshop/Illustrator.
- Render your design with different textures.
- Save as a new PDF file.
- Submit to the Box folder *Exercise 2-Adobe Basics*.

Note: Detailed procedures will be illustrated in the class.

Part IV: Design A Poster (Final Submission)

- Export One or more Posters in 11*17 using InDesign
- Submit to the Box folder *Assignment 1-Final Submission-Poster*

Note: Detailed procedures will be illustrated in the class.

DELIVERABLES

- **Exercises and Final Submission should be submitted to the BOX folder.**
LARC_1580_1581_8970_Digital_Representation
<https://clemons.box.com/s/zraz364a5i8jflmpuxipz1ohnc6h08ao>
- Files should be named like so: LastName_FirstName_ClassName_Exercise01.pdf (*Example: Eilish_Billie_LARC1580_Exercise01.pdf*)
- Your posters should contain the following:
 - Plan view of the project, including layers, dimensions, areas, textures, and colors.
 - Titles and annotations of your drawings.
 - Title of the poster, Your name, date, and class name.

NOTES:

- Instructional files will be provided on Canvas to guide you through the process and the software, but you can use any instructional video for further technique work.
- We will discuss the concept of a healthy digital workflow for this project, and you should aim to assemble your final poster in photoshop. However, you have creative control over the production of your graphic palette. For example, you might create all your symbols by hand (markers), scan and clean them on Photoshop, and export them as .pngs. You might decide to make them entirely digitally, or you might choose to mix methods.
- Try a few rendering techniques and see what is the most productive. Prioritize creating legible graphics, then push the limit by innovating and developing your style.
- Practice good file-organizing habits! Organize your assignments in folders, and keep everything you need for each project within reach. Save and update frequently.
- Try your best to you have three updated copies of your work. This will prevent you from starting over and help you retain your schoolwork records. It will pile up during your school years.
 - The first copy (working) should be on your laptop / personal computer.
 - The second copy should be on a cloud server (box, google drive, adobe cloud, etc.)
 - The third copy should be on an external hard drive.

GRADING SCHEMA

ITEM	CRITERIA FOR FULL GRADE	PERCENTAGE
COMPLETION AND TIMELINESS	• Everything is submitted on time; all the required elements are included. The formatting is correct.	10 %
DEVELOPMENT CURVE/ DIGITAL WORKFLOW	• Work demonstrates experimentation and innovation. Student • developed their graphic skills efficiently. • Decisions in analog and digital programs were sound and efficient to create cohesiveness and optimize quality.	20 %
GRAPHIC QUALITY	• The color palette is consistent and cohesive. • The print version is of excellent quality: no pixelation, clear margins, and correct colors. • Selected font(s) are clear, designedly, and work well with the graphic style.	30%
HIERARCHY AND LEGIBILITY	• The layout demonstrates a balance between positive and negative space and guides the eye thoughtfully through the poster. • Information hierarchy is easily discernible. • Text and didactic information are suitably sized and weighted. • Graphics represent the design concepts clearly. • Line weights are consistent and suitably used	40 %

PROJECT SCHEDULE

	LARC 1580/1581 & LARC 8970
WEEK 1	
TUES. JAN. 17	○ Begin the "Forms Combined" project ○ In Class Exercise-01: AutoCAD ○ Reviews & Feedback
THURS. JAN. 19	○ In Class Exercise-01 ○ Reviews & Feedback
WEEK 2	
TUES. JAN. 24	○ Submission for Exercise 1 on Tuesday ○ In Class Exercise-02: Photoshop, Illustrator ○ Reviews & Feedback
THURS. JAN. 26	○ In Class Exercise-02 ○ Reviews & Feedback
WEEK 3	
TUES. JAN. 31	○ Submission for Exercise 2 on Tuesday ○ Design a Poster
THURS. FEB. 2	○ Assignment 1 Submission & Presentation

ASSIGNMENT DESCRIPTION

Landscape Architecture Digital Design and Representation

INSTRUCTION OF ASSIGNMENT #2

PROJECT DESCRIPTION: In this assignment, Students are expected to complete a floor plan for the Barcelona Pavilion, designed by Mies van der Rohe through the more advanced commands in AutoCAD. This project will help you to work with management tools leading to presenting a professional design as well as enabling you to create layouts and documents to be adopted for construction. In the next step, the renderings will be applied to drawings which help to increase communication speed and efficiency, making it easy for clients to be involved in the creative process by allowing them to give clear feedback on what they see.

LEARNING GOALS:

- Utilize the power and precision of AutoCAD as a drafting and design tool.
- Apply basic and advanced CAD concepts to develop and construct accurate 2D drawings.
- Create, manipulate, and manage 2D drawings.
- Apply elements such as layers, dimensions, drawing formats, layout, and viewport.
- Manipulating appropriate commands in Illustrator or Photoshop to render your drawings to the best of you making them more readable and communicative.
- Ability to create layouts, with attention to information hierarchy, color palette, and balance between positive and negative space.

PROJECT PROCEDURES:

Part I: AutoCAD (Exercise 03)

- Start a new drawing naming it " LastName_FirstName_ClassName_Exercise03.dwg"
(Example: Eilish_Billie_LARC1580_Exercise01.dwg)
- Set up your drawing Units to be architectural type, with a precision of 1/4";
- Insert the "Barcelona Pavilion Plan.jpg" with base point at 0,0 using ATTACH command. Copy and Paste may also work here.
- Use SCALE (reference) command to scale the attachment so that each block of the floor grid equals 3'-0".
- Draw the entire structure
 - Solid Walls are to be 6" thick, and Glass Walls are to be 4" thick. Look up Barcelona Pavilion on internet if confused which walls are which.
- Hatch the pool areas and the solid walls (Preferably: solid fill hatch).
- Use the following Layers to manage your drawing: Floor, Wall, Wall Glass, Roof Line, Pools, Steps, Benches.
 - Layer Roof will have a LineType of "DASHED2" with the proper LineType. You need to change these numbers around for best results.

LARC 1580/1581/8970-Assignment 2

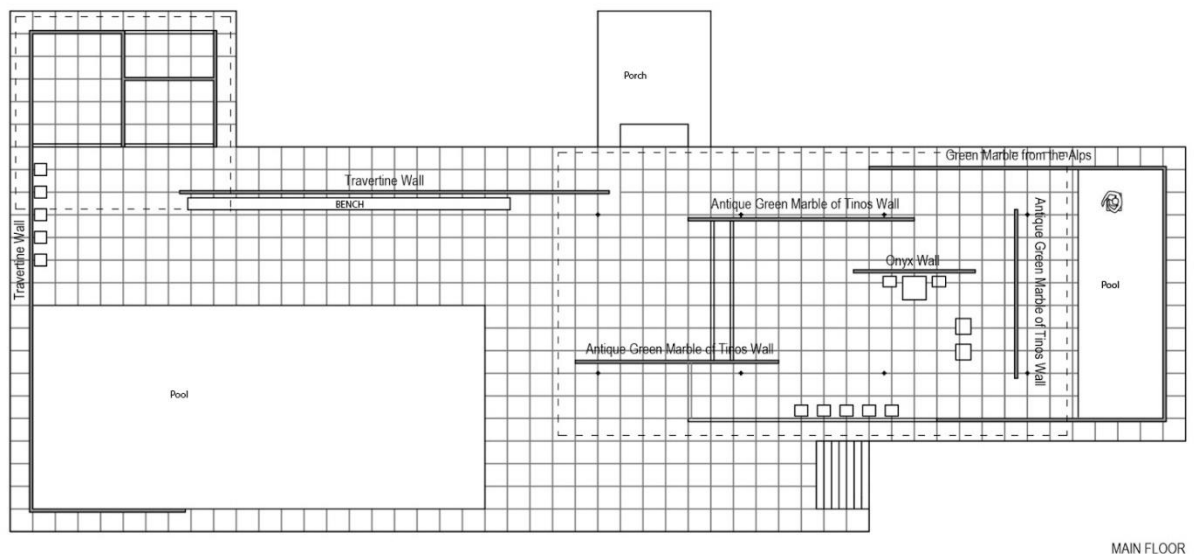
- Set up your Layout 1 in size of 11 x 17 inches and viewport in the appropriate scale.
- Add a title block into the Layout 1;
 - Barcelona Pavilion
 - Designed by Mies Van Der Rohe
 - Your Name
- Export the Drawing to PDF and submit it to the Box folder:
Exercise 03-Barcelona Pavilion Plan.

Note: Detailed procedures will be illustrated in the class.

Part II: Adobe (Photoshop or Illustrator and InDesign) (Final Submission)

- Import the PDF file into Photoshop/Illustrator.
- Render your design with proper textures and texts if needed.
- Save as a new PDF file.
- Export One Poster in 11*17 using InDesign.
- Submit to the Box folder *Assignment 2-Final Submission- Barcelona Pavilion Plan.*

Note: Detailed procedures will be illustrated in the class.



DELIVERABLES

- **Exercise and Final Submission should be submitted to the BOX folder.**
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<https://clemsan.box.com/s/zraz364a5i8jflmpuxipz1ohnc6h08ao>
- Files should be named like so: LastName_FirstName_ClassName_Exercise03.pdf (Example: *Eilish_Billie_LARC1580_Exercise03.pdf*)

GRADING SCHEMA

ITEM	CRITERIA FOR FULL GRADE	PERCENTAGE
COMPLETION AND TIMELINESS	- Everything is submitted on time; all the required elements are included. - The formatting is correct.	10 %
DEVELOPMENT CURVE/ DIGITAL WORKFLOW	- Work demonstrates experimentation and innovation. - Student developed their drawing skills efficiently. - Decisions in digital programs were sound and efficient to create cohesiveness and optimize quality.	20 %
GRAPHIC QUALITY	- The drawings are consistent and reasonable in terms of line weight, hatches, dimensions, layers. - The texts and colors match with the function and scale. - The color palette is consistent and cohesive. - The print version is of excellent quality: no pixelation, clear margins, and correct colors. - Selected font(s) are clear, designedly, and work well with the graphic style.	30%
HIERARCHY AND LEGIBILITY	- The layout demonstrates a balance between positive and negative space and guides the eye thoughtfully through the poster. - Information hierarchy is easily discernible. - Text and didactic information are suitably sized and weighted. - Graphics represent the design concepts clearly. - Line weights are consistent and suitably used	40 %

PROJECT SCHEDULE

	LARC 1580/1581 & LARC 8970
WEEK 5	
TUES. FEB 7	- Begin the " Barcelona Pavilion" project. - In Class Exercise-03: AutoCAD - Reviews & Feedback
THURS. FEB 9	- In Class Exercise-03 - Reviews & Feedback
WEEK 6	
TUES. FEB 14	Submission for Exercise 03 by midnight - Begin rendering the plan (Photoshop or Illustrator) - Reviews & Feedback
THURS. FEB 16	- rendering the plan (Photoshop or Illustrator) - Design a Poster - Reviews & Feedback
WEEK 7	
TUES. FEB 21	Final submission by midnight - Begin the "Pergola "project.

ASSIGNMENT DESCRIPTION

Landscape Architecture Digital Design and Representation

INSTRUCTION OF ASSIGNMENT #3

PROJECT DESCRIPTION: In this assignment, our main objective is to construct a pergola using SketchUp, a popular tool for designing in Landscape Architecture. To accomplish this, we will be working with an AutoCAD file that contains the design for the pergola. Our focus will be on learning how to transfer designs from AutoCAD to SketchUp, as well as how to create various types of designs, such as plan, section, perspective, and axonometric. Furthermore, we will be exploring how to render the model using Vray/Lumion, which will enhance the overall look and feel of the design. Additionally, we will be delving into advanced levels of AutoCAD to create a construction sheet that provides all the necessary information for building the pergola.

This project will take you through the design process from the initial concept drawing to the final presentation. You will gain hands-on experience with each step, including transferring the design from AutoCAD to SketchUp, creating various types of designs, rendering the model using Vray/Lumion, and creating a construction sheet. By the end of the project, you will have produced a portfolio that showcases all of your work and demonstrates your understanding of the design process. This experience will prepare you well for future design projects and presentations.

LEARNING GOALS:

- Get to know SketchUp and become familiar with its basic commands.
- Developing proficiency in creating plan, section, perspective, and axonometric designs.
- Learning how to render a perspective.
- Gaining experience with advanced levels of AutoCAD to create a construction sheet.
- Understanding the process of developing design work.
- Developing skills in communication and presentation to effectively convey design ideas.

PROJECT PROCEDURES:

Part I: SketchUp- Pergola Model (Exercise 04)

- Download and subscribe to SketchUp.
- Download the "LARC1580_Class_Material_Excercise 4.dwg" file from Canvas.
- Familiarize yourself with the model drawings.
- Create a new model with Architectural Inches as the unit of measurement.
- Import the downloaded file into SketchUp.

- Create a copy of the imported block.
- Explode one of the blocks to separate the individual components.
- Draw lines to generate surfaces for each component.
- Create components for each surface and put them on the other block.
- Understand the x, y, z axis using the arrows in SketchUp.
- Understand the concept of Tags in SketchUp.
- Export a 2D graphic of the model to a PDF file and submit it to the Box folder labeled *"Exercise 04-Pergola Model"*.

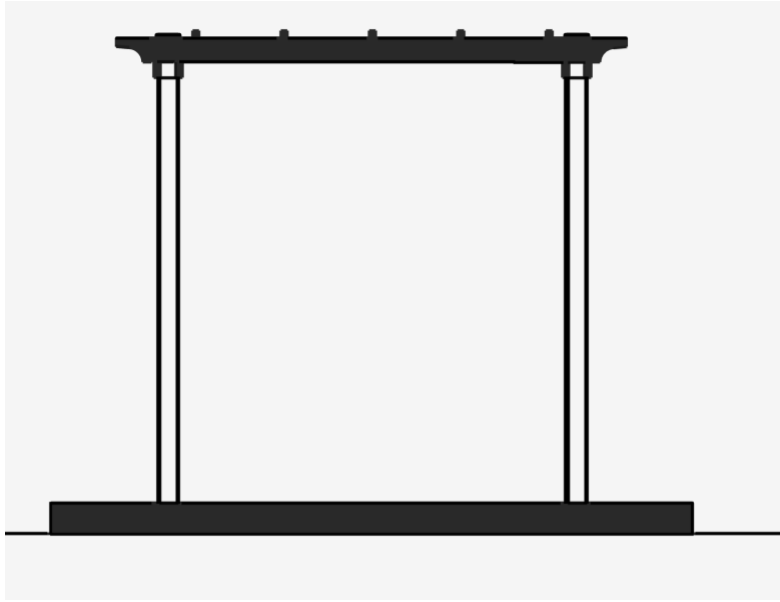
Note: Detailed procedures will be illustrated in the class.

Part II: SketchUp- Pergola Views, Section and Axonometric (Exercise 05)

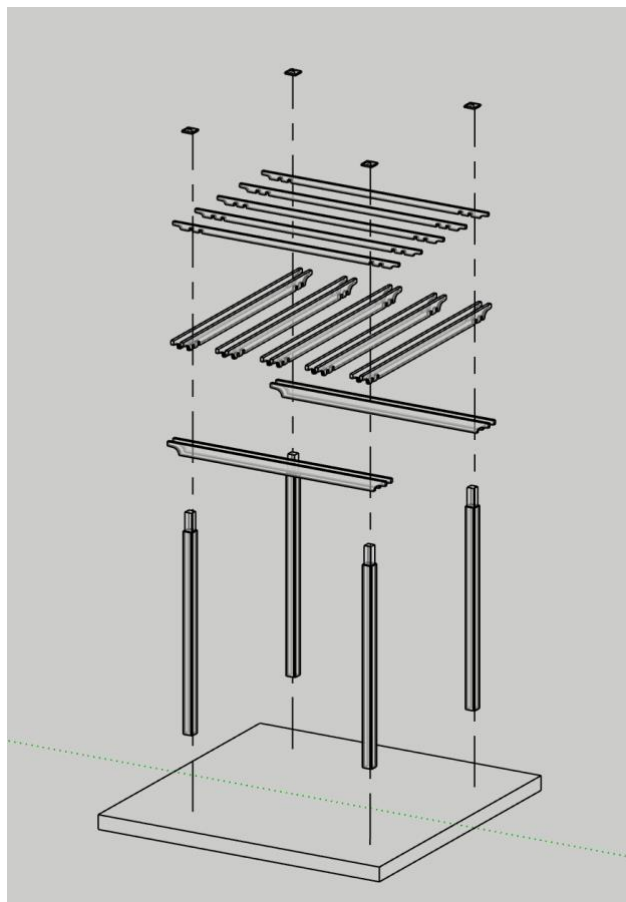
- Create scenes for front views, side views, section, and isometric views of the model.
- Add materials and textures to the model to enhance its appearance.
- Play around with different styles in SketchUp to achieve the desired effect.
- Export each view of the model to a separate PDF file.
- Submit the axonometric PDF file to the Box folder labeled *"Exercise 05-Pergola Views, Section and Axonometric"*.

Note: Detailed procedures will be illustrated in the class.

Example of Section:



Example of Axonometric:



Part III: SketchUp- Rendering and Export (Exercise 06)

- Apply materials and textures to the model to enhance its appearance.
- Create a scene that you want to render using Vray (Mac)/Lumion (Windows).
- Install and set up Vray or Lumion to work with SketchUp, if you haven't done so already.
- Adjust the settings in Vray/Lumion to achieve the desired lighting, materials, and camera position for the scene you want to render.
- Start the rendering process in Vray/Lumion.
- Once the rendering is complete, export the image as a JPEG or PNG file.
- Repeat steps 3-7 for each scene you want to render.
- Export the entire model as a 3D model file (such as a SKP or OBJ file) if desired.
- Submit one rendered image to the Box folder labeled "*Exercise 06-Rendering and Export*".

Note: Detailed procedures will be illustrated in the class.

Example of Rendering:



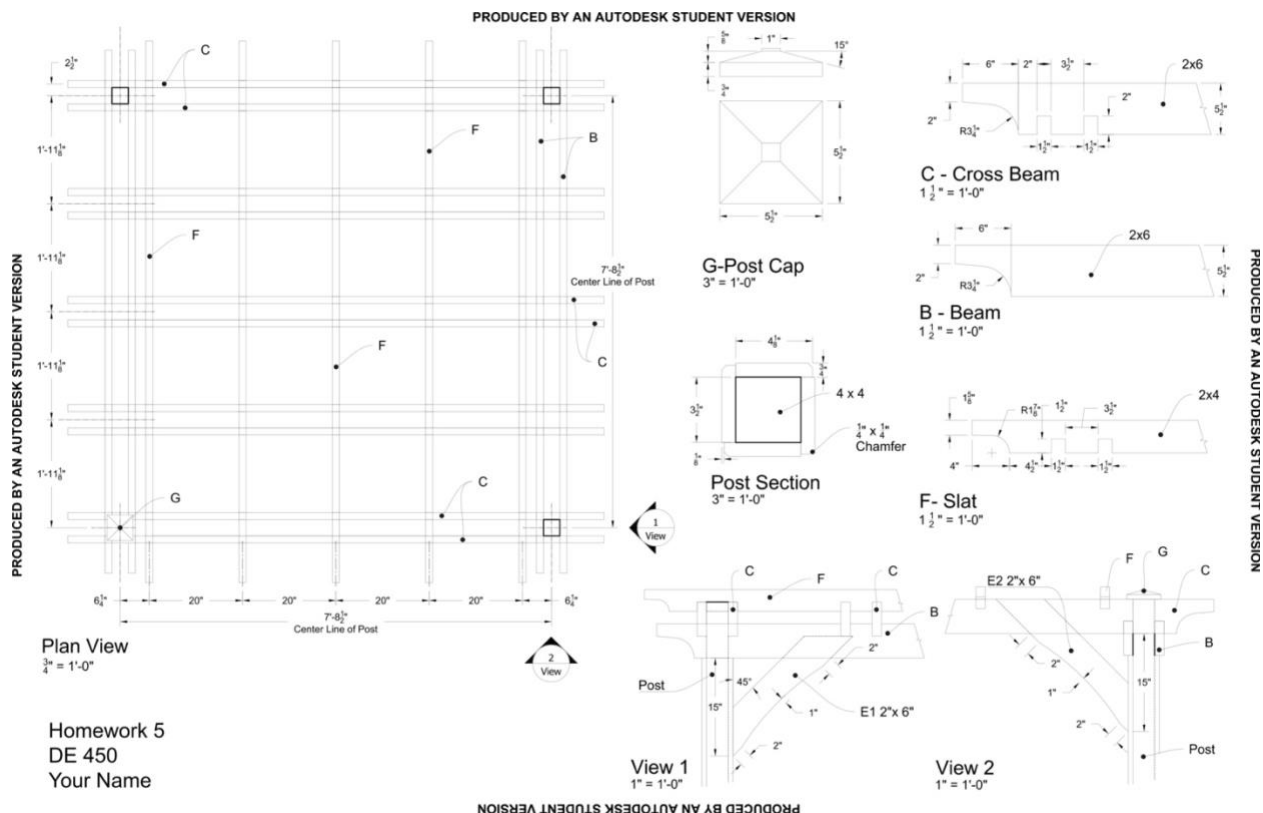
Part IV: AutoCAD Construction Sheet (Exercise 07)

- Create a new layout tab in the AutoCAD file for the construction sheet.
- Set up the page size 11 * 17 for the layout tab.

- Create multiple viewports in the layout that will contain the construction details for the pergola model.
- Add annotative dimensions for drawings in different scales using appropriate AutoCAD commands and tools.
- Add title to each drawing, and add project title, date, and your name.
- Export the layout as a PDF file.
- Submit both the DWG and PDF files to the Box folder labeled "Exercise 07-AutoCAD Construction Sheet".

Note: Detailed procedures will be illustrated in the class.

Example of Construction Sheet:



DELIVERABLES

- Exercise and Final Submission should be submitted to the BOX folder.
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<https://clemons.box.com/s/zraz364a5i8jflmpuxipz1ohnc6h08ao>

- Files should be named like so: LastName_FirstName_ClassName_Exercise04.pdf (Example: *Eilish_Billie_LARC1580_Exercise03.pdf*)

GRADING SCHEMA

ITEM	CRITERIA FOR FULL GRADE	PERCENTAGE
COMPLETION AND TIMELINESS	- Everything is submitted on time; all the required elements are included. - The formatting is correct.	10 %
DEVELOPMENT CURVE/ DIGITAL WORKFLOW	- Work demonstrates experimentation and innovation. - Student developed their drawing skills efficiently. - Decisions in digital programs were sound and efficient to create cohesiveness and optimize quality.	20 %
GRAPHIC QUALITY	- The drawings are consistent and reasonable in terms of line weight, hatches, dimensions, layers. - The texts and colors match with the function and scale. - The color palette is consistent and cohesive. - The print version is of excellent quality: no pixelation, clear margins, and correct colors. - Selected font(s) are clear, designedly, and work well with the graphic style.	30%
HIERARCHY AND LEGIBILITY	- The layout demonstrates a balance between positive and negative space and guides the eye thoughtfully through the poster. - Information hierarchy is easily discernible. - Text and didactic information are suitably sized and weighted. - Graphics represent the design concepts clearly. - Line weights are consistent and suitably used	40 %

PROJECT SCHEDULE

	LARC 1580/1581 & LARC 8970
WEEK 8	
TUES. FEB 28	- Begin the " Pergola" project. - In Class Exercise-04: SketchUp - Reviews & Feedback
THURS. MAR 2	- In Class Exercise-04: SketchUp - Reviews & Feedback
WEEK 9	
TUES. MAR 7	Submission for Exercise 04 by midnight - In Class Exercise-05: SketchUp Views, Section, Axonometric - Reviews & Feedback
THURS. MAR 9	- In Class Exercise-05: SketchUp Views, Section, Axonometric - Reviews & Feedback
WEEK 10	
TUES. MAR 14	Submission for Exercise 05 by midnight - In Class Exercise-06: Rendering and Export (Rendering is optional)
THURS, MAR 16	In Class Exercise-06: Rendering and Export
WEEK 11	Spring Break
WEEK 12	
TUES. MAR 28	Submission for Exercise 06 by midnight

LARC 1580/1581/8970-Assignment 3_Pergola

	○ In Class Exercise-07: Advanced AutoCAD
THURS, MAR 30	○ Submission for Exercise 07 by midnight ○ Portfolio Pages Using InDesign
WEEK 13	
TUES. MAR 14	○ Final Submission & Presentation ○ Start of Final Studio Project

ASSIGNMENT DESCRIPTION
Landscape Architecture Digital Design and Representation

INSTRUCTION OF ASSIGNMENT #4
STUDIO PROJECT DEVELOPMENT

PROJECT DESCRIPTION: In this assignment, the primary objective is to gain proficiency in using various applications throughout different design phases, such as site analysis, schematic design, rendering, and perspectives. This will enable students to effectively navigate the design process and create visually engaging and coherent presentations of their work.

LEARNING GOALS:

- Acquire familiarity with design software, including Photoshop, Illustrator, and SketchUp, to enhance digital design skills.
- Develop an understanding of various design phases, including site analysis, schematic design, rendering, and perspectives.
- Gain proficiency in using different applications and tools relevant to each design phase, enhancing overall design skills.
- Enhance critical thinking and problem-solving abilities by applying the learned applications to real-world design scenarios.
- Improve visual communication and presentation skills by creating coherent, engaging, and aesthetically appealing representations of design concepts.

PROJECT PROCEDURES:

Part I: Site Analysis with Illustrator (Exercise 08)

- Download Open Street Map and open in illustrator
- Axonometric
- Illustrator to photoshop
- Modeling Existing Topo (Optional)

<https://www.youtube.com/watch?v=oHq1xjXp4x8>

Part II: Master Plan Rendering (Exercise 09)

- Exploring inspiring rendered plan ideas
- Rendering plan in photoshop

Part III: Elevation and Section (Exercise 10)

- Exploring inspiring rendered section & elevation ideas
- Rendering section & elevation in photoshop

Part IV: Perspective Rendering (Exercise 11)

- Worktime for studio projects
- Rendering perspectives in photoshop (optional)*

Note: Detailed procedures will be illustrated in the class.

DELIVERABLES

- **Exercise and Final Submission should be submitted to the BOX folder.**
LARC_1580_1581_8970_Digital_Representation
<https://clemsontechbox.com/s/zraz364a5i8jflmpuxipz1ohnc6h08ao>
- Files should be named like so: LastName_FirstName_ClassName_Exercise08.pdf (*Example: Eilish_Billie_LARC1580_Exercise08.pdf*)

GRADING SCHEMA

ITEM	CRITERIA FOR FULL GRADE	PERCENTAGE
COMPLETION AND TIMELINESS	• Everything is submitted on time; all the required elements are included. • The formatting is correct.	10 %
DEVELOPMENT CURVE/ DIGITAL WORKFLOW	• Work demonstrates experimentation and innovation. • Student developed their drawing skills efficiently. • Decisions in digital programs were sound and efficient to create cohesiveness and optimize quality.	20 %
GRAPHIC QUALITY	• The drawings are consistent and reasonable in terms of line weight, hatches, dimensions, layers. • The texts and colors match with the function and scale. • The color palette is consistent and cohesive. • The print version is of excellent quality: no pixelation, clear margins, and correct colors. • Selected font(s) are clear, designedly, and work well with the graphic style.	30%
HIERARCHY AND LEGIBILITY	• The layout demonstrates a balance between positive and negative space and guides the eye thoughtfully through the poster. • Information hierarchy is easily discernible. • Text and didactic information are suitably sized and weighted. • Graphics represent the design concepts clearly. • Line weights are consistent and suitably used	40 %

PROJECT SCHEDULE

	LARC 1580/1581 & LARC 8970
WEEK 13	
TUES. Apr 4	○ Site Analysis Rendering ○ In Class Exercise-08: Illustrator ○ Reviews & Feedback
THURS. Apr 6	○ In Class Exercise-08: Studio projects ○ Reviews & Feedback
WEEK 14	
TUES. Apr 11	○ Submission for Exercise 08 by midnight ○ Plan Rendering ○ In Class Exercise-09: Photoshop ○ Reviews & Feedback
THURS. Apr 13	○ In Class Exercise-09: Studio projects ○ Reviews & Feedback
WEEK 15	
TUES. Apr 18	○ Submission for Exercise 09 by midnight ○ Section & Elevation Rendering ○ In Class Exercise-10: Photoshop ○ Reviews & Feedback
THURS, Apr 20	○ In Class Exercise-10: Studio projects ○ Reviews & Feedback
WEEK 16	
TUES. Apr 25	○ Submission for Exercise 10 by midnight ○ In Class Exercise-11: studio project
THURS, Apr 27	○ Submission for Exercise 11 by midnight ○ In Class Exercise-11: studio project
WEEK 17	
TBD	○ Portfolio Pages Using InDesign ○ Final Submission