

VISUALIZATION III

3D Digital Design and Communication

Rutgers, The State University of New Jersey

Fall 2026

Landscape Architecture 11:550:350

Instructor : Haemee Han, LLA, ASLA haemee.han@rutgers.edu

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Blake Hall Room 129 | Tuesday & Friday 8:30AM-11:30AM

Office Hour (Logan) : Friday 1PM-2PM

Course Folder : [550-350 VIZ3](#)



Image credit : LMTLS Architecture (Jaeyual Lee, Daeho Lee, Beomki Lee), Skin 1004 Soho NYC

The contemporary practice of Landscape Architecture requires the designer to fluidly work in a variety of digital media and with an integrated approach to analogue and digital design practices. Acquiring the fundamental skills of 2D drafting and 3D modelling facilitates landscape architects' ability to speculate, develop, produce, and communicate their spatial ideas with clarity and

precision. This course will expand on the fundamentals of computer-aided design and drafting as a design and communication tool in the practice of landscape architecture. Intended as a continuation and progression beyond the fundamental drawing principles and graphic design tools introduced in the earlier visualization sequence of courses (Landscape Drawing & Design Communication), this course is designed to further the students' understanding of 2D and 3D space, form, and the application of the standards of visual representation in the practice of Landscape Architecture. Using digital drawing and representation as investigatory methods in design research, students will harness new methods for visualization in their study of a seminal work of landscape architecture from across the globe.

Course Goal

Upon completion of this course, students with a passing grade will exhibit the following skills:

- Enhance both conceptual and practical design thinking through three-dimensional studies.
- Develop 3D modeling skills building on previously developed 2D drafting skills and logic.
- Building workflow between 2D and 3D software.
- Generate multiple design ideas and develop a design idea through 3D study iterations.
- Identify modelling methods based on 3d form, landscape materials, and construction techniques.
- Develop a unique graphic style that effectively communicates and visually represents design concepts.
- Students will produce a comprehensive design package integrating a 3D model with environment, 2D drafted architectural drawing set, rendered views, and illustrated presentation level drawings.

Course Format

1. Lecture
2. In-Class Tutorials & Exercises
3. Weekly Assignments & Critiques
4. Pop Quiz
5. Final Portfolio

Student Obligations and Expectations

The course is a prerequisite in the Landscape Architecture degree program and the second in the sequence of Visualization courses required by the student for graduation. In accordance with university policy, students are expected to work an additional 9.75 hours per week outside of class. Therefore, please prepare appropriate time in your schedule this semester in relationship to your other course work, employment, and social obligations to prepare for and participate in class.

Students are expected to:

1. Complete and submit all assignments as directed on the designated due date. Late coursework will not be accepted.
2. Come to class on time. Late arrivals greater than twenty (20) minutes will be marked as absence.
3. Take notes during class presentations to help retain knowledge and repeat procedures outside of

class. The instructor will not review any content that has been missed by a student's absence. Your attendance will be directly related to your success in this class.

4. Care. Put 100% into every one of your assignments and be proud of the work you produce in this class. Treat each assignment like it is your last.

5. Seek help, when needed, during office hours and in advance of an assignment's due date.

Equipment and Use of Facilities

Laptop (please check graphic cards & memory needed for Lumion)

Mouse (required)

Software: AutoCAD, AdobeCC, Rhinoceros, Lumion, Grasshopper Plug-in (Ladybug, Lunchbox), Paneling Tool

D5 – Free for student version

AI tool - Nano Banana (Google AI studio – web based trial version)

Assignments

Students will be given weekly assignments on Tuesday. Assignments are to be worked on outside of class time and 'work in progress' is to be discussed during Friday class meetings. Weekly assignments must be uploaded to Canvas by the due date/time specified.

If a student misses a class, whether excused or unexcused, it is the responsibility of the student to acquire the missed lecture information, new assignment and submit the previous assignment on time. Except for documented circumstances truly beyond the student's control, all projects that are incomplete on the due date should still be submitted on the due date in their incomplete state, to receive partial credit. Late submissions **up to one week after the deadline** (without prior approval) will be accepted with a **one full letter grade deduction**.

Late submissions **more than one week past the deadline** will not be accepted. The Canvas submission window will close and will not be reopened.

If you have concerns about your grading in this course, please contact your academic advisor.

Weekly Assignments

Students must conform to the following naming conventions:

550-350_LastName_FirstName_Assignment#

All the exported PDFs should be under **10MB**

Readings and Resources

<https://www.food4rhino.com/en> For downloading Grasshopper Plugins

<https://3dwarehouse.sketchup.com/> For model downloads

<https://docs.midjourney.com/hc/en-us/articles/33329261836941-Getting-Started-Guide>

Midjourney * option

Course Grades

Scores for class projects during this semester will be graded and recorded as if for one class. Grades for the two courses will be determined based upon the following performance scale. In the event of split grades for the two courses, the instructor reserves the right to determine which course to assign grades. Grades will be based upon assessment of your performance.

A | Exemplary Work. Exceptional performance, discipline, and effort. The student is self-motivated to produce above and beyond what is assigned. "A" work shows initiative and independent exploration both in thought and in craft.

B | Good Work. Performance above the norm. A "B+" student completes precise and thoughtful work that executes the assignment in a well-crafted, thoughtful way, with a concept behind it. "B" work meets all expected criteria but lacks conceptual advancement or understanding.

C | Work is Lacking. Mediocre performance, little discipline, and effort. Student barely meets or is lacking the expectations of the assignment, and work is carried out in an unrefined manner.

D | Unacceptable Work. Not meeting the expectations or standards for the assignment and/or program. Students failed to apply the concepts applicable to the assignment. A sense of care does not accompany work submission.

F | Failing, Unacceptable Work. Complete lack of performance and shows no regret for non-compliance with the minimum requirements.

Academic Integrity

1. Attendance Policy

The Department of Landscape Architecture requires attendance in all of its classes. The individual student's development as a landscape architect is largely dependent upon two aspects of education. First, is the exposure to an assimilation of a body of information which relates to the field. Second, is the application of this knowledge through studio projects and problem-solving skills developed through critiques, reviews, and interactions during each project. The Rutgers Landscape Architecture curriculum is designed to develop both areas. Attendance and participation in all lectures and studios are essential if the student is to achieve their maximum potential. It is the Policy of the department that more than **three (3) unexcused absences will result in a reduction of the final course grade**. Each additional three absence will result in another step reduction. If circumstances arise beyond your control, please notify the instructor prior to the class meeting, and other arrangements will be made. **Please note that attendance is taken at the start of class and late arrivals greater than 20 minutes will be documented as a full absence**. In addition, students may not leave the class prior to the official end

time of class unless the instructor has officially dismissed the students, or the early departure has been pre-arranged with the instructor in advance. In-class exercises / pop up quiz will be handed out during class periods; there will not be a chance to make up missed exercises.

2. Excused absences

An excused absence includes a written excuse from a Physician, excuse from the Dean of the College, or a field trip for another course if this instructor is notified **one week or more in advance**.

3. Due dates, deadlines, and presentations

Assignments must be submitted on the stated due date, time and place regardless of how complete or incomplete it is. No extensions will be given.

4. Policy for make-up work due to excused absence

Upon return from an excused absence, a student has **Three(3) days** to turn in any missed assignments without penalty.

5. Students needing assistance:

Students who know that they have any type of disability which may affect their performance in the class must inform the instructor of such disability in writing before the second-class meeting. The instructor will coordinate with the University Counseling and Testing Center as needed. To be eligible for any accommodations outlined in Section 6 below, students must obtain an official Letter of Accommodation (LOA).

6. Students with Letter of Accommodation (LOA):

This course is structured around a cumulative sequence of assignments, with required check-ins at each designated due date. Students with an LOA are expected to adhere to the same deadlines and **will not** receive automatic extensions. Completing the entire project retroactively at the end of the term is not permitted.

In the case of an emergency, you may contact the Dean of Students for support; however, this does not guarantee an extension or an excused delay.

If you have an LOA and anticipate needing an extension, you must notify the instructor via the Canvas project submission page **at least 24 hours before the deadline**. Extensions must be approved by the instructor or TA. Once approved, you will receive an **additional 3 days** to submit the assignment.

Late submissions **up to one week after the deadline** (without prior approval) will be accepted with a **one full letter grade deduction**.

Late submissions **more than one week past the deadline** will not be accepted. The Canvas submission window will close and will not be reopened.

If you have concerns about your grading in this course, please contact your academic advisor.

7. Absence for Religious Obligations:

It is University policy (University Regulation on Attendance, Book 2, 2.47B, formerly 60.14f) **to excuse, without penalty,** students who are absent from class because of religious observance and to allow the makeup of work missed because of such absence. Examinations and special required out-of-class activities shall ordinarily not be scheduled on those days when religiously observant students refrain

from participating in secular activities. Absences for reasons of religious obligation shall not be counted for purposes of reporting. Students are advised to provide timely notification to instructors about necessary absences for religious observances and are responsible for making up the work or exams according to an agreed-upon schedule.

8. Work ethics and standards:

Professionalism is requested. If presenting, students will be expected to wear professional dress. During studio, casual clothes suitable for work in an office will be the standard. Professional work days require evidence of self-directed learning and initiative. All students are encouraged to work together in the studio outside of class time rather than at home. You will each benefit from the interaction with classmates and upperclassmen if you take advantage of this opportunity. Typically, students who produce superior work participate fully in the studio environment rather than in isolation.

9. Lab rules and etiquette:

During class time, the following will not be permitted: • Use of tobacco of any form • Playing music or use of earphones • Browsing/surfing the Internet not related to class unless indicated by the class instructor • No pets in the studio & lab • Please observe common courtesy when working with others in the studio.

10. Cell Phone Use:

Cell phone use during class is considered a public distraction and discourteous to those around you. Please turn off your phone during lectures and place your phone out of sight in backpacks, purses or lockers. If you need to communicate using this vehicle – please do so outside of the studio. Playing games on your phone is not permitted.

11. Documentation of Student's Work:

Students are required to keep all work completed during a semester until the end of the term in order to review progress and aid discussion if necessary.

12. Studio and Computer Lab Work:

All students are encouraged to work together in the studio outside of class time rather than at home. You will benefit from the interaction with classmates and upperclassmen.

13. Academic Honesty:

While students are encouraged to work alongside one another to learn the tools and techniques presented in this course and foster a positive studio environment, copying or sharing of digital information is not acceptable and will be considered a violation of the school's Integrity Policy

Weekly Focus (14 Weeks) and Related Tools

Part 1 Basic Modeling & Rendering

Week 1 (Modeling Site) – Rhino

Week 2 (Modeling Site) – Rhino

Week 3 (Modeling Surrounding) – Rhino
 Week 4 (Axon + Diagrams) – Rhino, Illustrator
 Week 5 (Perspective I & Concept Collage) – Rhino, D5, Photoshop
 Part 2 Advanced Modeling
 Week 6 (Modeling Proposed Design) – Rhino
 Week 7-8 (Modeling Proposed Design) – Rhino
 Week 9 Pumpkin Project (Halloween)
 Week 10 (Advanced modeling) – Rhino / Paneling Tool or Grasshopper

Part 3 Visualization
 Week 11 (Plan) – D5/Adobe
 Week 12 (Section) – D5/Adobe
 Week 13 (Perspectives II) – Nano Banana/D5/Adobe
 Week 14 (Portfolio & Board) – Adobe

Assignment & Grading Schedule

1_Site Modeling I	5%
2_Site Modeling II	10%
3_Axon	10%
4_Analytical Collage	10%
5_Design Modeling	15%
6_Pumpkin Project	5%
7_Design Development	5%
8_Plan and Section Perspective	15%
9_Perspective	10%
10_Portfolio	15%

Class Schedule

<u>Day</u>	<u>Date</u>	<u>Class Assignment</u>
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Part 1 : Basic Modeling & Rendering

Week 1: Drafting & Surface making I

Tue.	9/1	Tutorial : Drafting & Surface Making I
Fri.	9/4	Tutorial : Drafting & Surface Making I

Week 2 : Surface making II

Tue.	9/8	No Class- Monday Schedule
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Assignment #1 : Site Modeling I, Due 9/8 Tuesday 8:00AM

Fri.	9/11	Tutorial : Surface Making II (Steps, ramps)
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Week 3 : Surface making II

Tue. 9/15 Tutorial : Surface Making II (Topography)

Fri. 9/18 **HH Out for conference, Optional Class Worksession**

Week 4 : Buildings and Bridge

Tue. 9/22 Tutorial : Building & Bridge

Junior Studio Site Visit : Juniors + HH Leave 1 Hour early

Fri. 9/25 Work session

Assignment #2 : Site Modeling II, Due 9/25 Friday 11:30AM

Week 5 : Axon

Tue. 9/29 Tutorial : Make 2D, Exploded Axon

Fri. 10/2 Tutorial as needed

Part 2 : Advanced Modeling

Week 6 : Basic Rendering & Perspective I

Tue. 10/6 Tutorial : D5 (or Lumion)

Assignment #3 : Axon, Due 10/6 Tuesday 8:00AM

Fri. 10/9 Tutorial : PSD post production

Week 7 : Design Modeling I

Tue. 10/13 Project Intro Tutorial: as needed

Assignment #4 : Analytical Collage, Due 10/13 Tuesday 8:00AM

Fri. 10/16 Tutorial as needed

Week 8 : Design Modeling II

Tue. 10/20 Tutorial as needed

Fri. 10/23 Tutorial as needed

Week 9 : Pumpkin Project

Tue. 10/27 Tutorial : Making Pumpkins

Assignment #5 : Design Modeling, Due 10/27 Tuesday 8:00AM

Fri. 10/30 Work Session – *Halloween*

Assignment #6 : Pumpking Project, Due 10/30 Friday 11:30AM

Week 10 : Advanced Modeling

Tue. 11/3 Tutorial : Paneling Tools or/and Grasshopper

Fri. 11/6 Work Session

Part 3 : Visualization

Week 11 : Plan

Tue. 11/10 Tutorial : Plan rendering

Assignment #7 : Design Development, Due 11/10 Tuesday 8:00AM

Fri. 11/13 Work Session

Week 12 : Section Perspective

Tue. 11/17 Tutorial : Section

Fri. 11/20 Post Production

Week 13 : Perspective II

Tue. 11/24 Tutorial : Nano Banana (Google AI Studio)

Assignment #8 : Plan + Section Perspective Due 11/24 Tuesday 8:00AM

Fri. 11/27 **No Class – Thanksgiving Break**

Week 14 : Design Revision & Portfolio

Tue. 12/1 Work Session

Assignment #9 : Perspective II Due 12/1 Tuesday 8:00AM

Fri. 12/4 Work Session

Week 15 : Final Submission

Tue. 12/9 Pin Up & Canvas Submission. No Presentation

Assignment #10 Due 12/9 Tuesday Pin Up by 10:00AM

*The detailed schedule above is tentative and may change as the course develops

DEI Statement

SEBS DEI Statement It is our intention that students of all backgrounds will be well served by this course. We will work to create an environment of inclusion which respects and affirms the inherent dignity, value, and uniqueness of all individuals, communities and perspectives. We are lucky to have a diverse university. Diverse voices and life experiences enhance the learning process, and we welcome students to share their personal experiences. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual, please let us know. You may speak with the instructors in person, over email or report anonymously via the Office of Academic Programs. In addition, you may also report bias to the Rutgers Diversity and Inclusion initiative using this link:

<http://inclusion.rutgers.edu/report-bias-incident/>. For further reference, please visit:

<https://sebscourseapproval.rutgers.edu/policies/syllabus-dei-statements-policy>