

Rutgers, The State University of New Jersey

Spring 2024

Landscape Architecture Construction II : Materials & Assemblies

Course Code: Landscape Architecture 11:550:341 (4 Credits)

Instructor: Haemee Han, LLA, ASLA
Han Yan, Ph.D. ASLA

Location : Blake Hall Room 246

Email : haemee.han@rutgers.edu, yh341@sebs.rutgers.edu

Office House: By Appointment Only

Course Time : Wednesday 10:20 AM–1:20 PM & Friday 2:00 PM – 5:00 PM

Course Description:

Materials, for the landscape architect, are everything. Air, trees, space, people, and surfaces – everything can be said to be an element in the design of landscape architectural space. But while we are learning to be spatial designers, we do not design space in itself. We work on its edges, surfaces, frames, containers, and forms that define the clearings where we work, live, gather and debate. It is in the material construction of these containers that we are able to make the physical choices that both function and express. In the construction sequence, the installation of landscape materials follows broader site preparations, and in a sense, develops out of the general design into specific expressions of function, use and appearance. This course forms a critical link between conceptual design and construction documentation, as it will develop the skills needed to translate idea into successfully built and evocative spaces for living.

Learning Objectives:

1. Identify the physical, functional, and aesthetic properties of landscape architectural materials.
2. Develop sustainable landscape architectural assemblies with materials that interact with physical forces of the environment.
3. Learn industry communication methods to describe materials and assemblies to stakeholders in the landscape architectural design process.

Course Format:

1. Lecture
2. In-Class Exercises & Labs
3. Mid term exam
4. Mid Review
5. Final Review

Student Obligations and expectations:

Students are expected to:

1. Complete and submit all assignments as directed on the designated due date. Late coursework will not be accepted unless approved by the instructor.
2. Come to class on time. Four (4) Late arrivals will be considered as one (1) 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:

Digital Equipment:

Laptop (please check graphic cards & memory needed for AutoCad and Adobe CC) & Mouse

Software: AutoCAD, AdobeCC, Rhinoceros(Optional)

Woodworking:

Students will also learn and utilize woodworking tools in both Blake's fabrication lab and RU Makerspace. The tools include a table saw, mitre saw, drill press, hand drills, jigsaw, hammer, sanders, band saw, hand saw, etc. Students are responsible for wearing appropriate safety attire and equipment, such as safety glasses, face masks (respirators), hearing protection (limited availability in the lab), work gloves, and proper clothing.

Students are required to take on-line and in-person woodshop tutorials and pass the both written and in-person test to get access to both Blake and Makerspace.

<https://makerspace.rutgers.edu/trainings>

Attendance:

The Department of Landscape Architecture requires attendance in all of its classes. All studio meetings including both Lecture and Lab are required. 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 absences will result in another step reduction. If circumstance arises 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 10 minutes will be documented as a full absence. 3 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 will be handed out during class periods; there will not be a chance to make up missed exercises.

Policies:

If you encounter any personal circumstances that inhibit your ability to fulfil the requirements of this course, you should immediately contact the instructor. In addition, any student with a special need, circumstance, or disability, should make an appointment to see the instructor during the first week of classes. If there is a plotting problem, PDF files can be uploaded or emailed to the instructor and the assignment will not be considered late. All information in this syllabus and course schedule is subject to change. 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. When an outside Lab activity is scheduled, students should wear boots, long pants, and long shirts. Hair should be tied back. Provided safety gear shall be worn when working with tools.

Labs:

Labs are to be worked on both during and outside of class time. Labs are discussed during class meetings as seen in the class schedule. Specific Lab instructions are articulated on Canvas. 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 to receive a partial credit. If a student elects to not submit work, they will receive a zero. Any project work submitted late will lose a letter grade for each day past due. Students must conform to the following naming conventions for Lab submissions: 550-341_LastName_FirstName

Readings and Resources:

Calkins, Meg. *Materials for Sustainable Sites*. Wiley, New Jersey. 2009.

Harris, Charles and Dines, Nicholas. *Timesaver Standards for Landscape Architecture*. McGraw-Hill, New York. 1997.

Zimmermann, Astrid. *Constructing Landscape: Materials, Techniques, Structural Components*. Birkhauser Architecture. Basel. 2011.

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. Student 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 absences 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 10 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 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.

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

Upon return from an excused absence, a student has one week to turn in any missed assignments without penalty.

5. Students needing assistance:

Students who know or suspect 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 third class meeting. The professor will work with the University Counseling and Testing Center to accommodate the needs of such students. Without such notification, no special accommodations will be considered at any later date.

6. Special Circumstances:

Other situations will be dealt with on a case by case basis between the student and the instructor outside of class time. Arrangements will be made in writing and signed by both parties. Do not discuss late work or absences during class time.

7. 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.

8. 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.

9. 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 studio 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.

10. 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.

11. 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.

12. 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

Assignment & Grading Schedule

Midterm Exam – **15% (Individual)**

Lab Work – **25% (Individual)**

1. Site Analysis (5%)
2. Design Concept (5%)
3. Maker Space Exercise - Assembly Ideation (5%)
4. As Built Drawing (10%)

Mid Review (Design + Mock Up Model) Pin Up – **20% (Small Group)**

Final Installation & Presentation - **30% (Big Group)**

Class Attendance & Participation - **10% (Individual)**

Class Schedule

Day Date Class Assignment

Part 1 : Material & Assembly Technique

Week 1 : Introduction

Wed. 1/17 Intro
Lecture (HY): Material Sourcing + Becoming Material
Lecture (HH) : Lifespan, Time, Material
Fri. 1/19 Lecture (HH): Design Build / Introduction to Folly Project
Folly : Site Analysis, Site Measurement
Field Walk to Rutgers Design Build Project + Site Walk

Week 2 : Existing Site & Structure

Wed. 1/24 Lecture (HY): Basic Engineering for Landscape Structure
Lecture (HY): Concrete
Fri. 1/26 **Folly : Site Analysis Due,**
Field Trip to Rutgers Garden

Week 3 : Concrete & Stone

Wed. 1/31 Guest Lecture : Stone (Coldspring)
Start with Design Concept
Fri. 2/2 **Field Trip to Hanover Paver (Hanover, PA)**

Week 4 : Asphalt & Masonry

Wed. 2/7 Lecture (HY) : Asphalt
Fri. 2/9 Lecture (HY) : Brick
Folly : Concept Design Due- Presentation

Week 5 : Wood (Learning wood working tools)

Wed. 2/14 Lecture (HH): Wood, intro to woodworking tools in Blake's Fabrication Lab.
Fri. 2/16 Field Trip to Maker Space

Week 6 : Metal & Lighting

Wed. 2/21 Lecture (HY) : Metals
Folly : Assembly Ideation Due
Fri. 2/23 Guest Lecture : Lighting (Diversified)
Folly : Detail Design

Week 7 : Green Roof

Wed. 2/28 Lecture (HH) : Green Roof
Fri. 3/1 **Folly : Mock Up Model**

Week 8 : Unconventional Materials

Wed. 3/6 Lecture (HH) : Unconventional Materials
Fri. 3/8 **Folly : Mid Review Design Presentation**

SPRING RECESS

Part 2 : Site Specific Installation

Week 9 : CD set & Material Sourcing

Wed. 3/20 Lecture (HH) : Construction Document & Communication
Fri. 3/22 **Folly : Construction Document & Material Sourcing**

Week 10 : Site Preparation

Wed. 3/27 **Folly : Site Preparation**
Fri. 3/29 **Mid Term Exam**
Folly : Site Preparation

Week 11 : Fabrication

Wed. 4/3 **Folly : In House Fabrication**
Fri. 4/5 **Folly : In House Fabrication**

Week 12 : Assembly

Wed. 4/10 **Folly : On Site Assembly**
Fri. 4/12 **Folly : On Site Assembly**

Week 13 : Installation & As Built Drawing

Wed. 4/17 Lecture (HY) : As Built Drawing
Fri: 4/19 **Folly : On Site Assembly, Finishes**

Week 14 : Installation & As Built Drawing

Wed. 4/24 **Folly : On Site Assembly, Finishes & As Built Drawing**
Fri. 4/26 **Folly : Installation Opening**
As Built Drawing Due

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