

Rutgers—the State University of New Jersey, School of Environmental and Biological Sciences
Department of Landscape Architecture

CONSTRUCTION III –11:550:441 Design Implementation and Practice
COURSE SYLLABUS Fall 2025

Credits: 4
Instructor: Richard Alomar, RLA
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Schedule: Class: T F 8:30 AM-11:30PM
Office Hours: By appointment

Overview

Construction III, Design Implementation and Practice is the final course in the Construction Sequence in the Department of Landscape Architecture. It takes a project from existing conditions to schematic construction drawings based on a specific concept, performance requirements and scope of work. The course will approach the work as a real-world design studio, simulating the dynamics, structure, and requirements of a professional office. Students will apply their knowledge in data collection and research, design development, digital representation and learn the construction drawing production and administration process.

As a capstone course, it assumes the successful completion of all prerequisite courses and proficiency in design, grading, materials, technical drawing, and digital representation. If you are not comfortable with any of your skills in these areas, please make time early in the semester to review and practice.

Course Goals

To **develop skills** to interpret science, technology, and cultural context to design and develop innovative solutions in sustainability, land stewardship, and other contemporary urban challenges. (Master technical and industry standards to foster safe accessible environments using the materials, methods, and technologies of site effectively and sustainably design and engineering).

To **acquire professional abilities** with ethical, technical, and industry standards to foster social well-being through safe, accessible, and healthy environments. (Demonstrate knowledge of the professional practice skills required for the Landscape Architecture Accreditation licensure exam).

To **explore how to creatively design space and spatial relationships**. (Analyze and thoughtfully incorporate natural features and systems to create enduring and ecologically sensitive design solutions).

Learning Objectives (LO)

The learning objectives of this course are:

- 1. Learn the technical aspects of design through the production of plans, sections, details, and notes.*
- 2. Learn the professional and administrative aspects of design construction through readings, lectures, and focused class discussion.*
- 3. Learn time management skills through coordination of multiple tasks and deadlines.*

The course is designed to review and expand the skills required to develop documents for the construction of a proposed design. The sequencing of work has been developed to build on existing knowledge of design fundamentals, grading and drainage, planting design, materials and construction documentation and administration.

Each phase of work will have multiple parts and will extend over multiple weeks. The assignments are a guide for completing the project successfully and an opportunity to receive input and revise your design and working drawings. They will later form part of a set of schematic construction drawings.

As a record of your progress and to develop your project management skills you will be required to keep project notes. The project notes contain to-do lists, work completed, and other information related to your project. The project notes will be reviewed weekly during the studio and count in your overall course grade. This reiterates the importance of managing and planning your work.

Course Description

The course is divided into three areas:

CONCEPT DESIGN

Covers a review drawing standards practices for sustainable design and implications of earthwork forms in construction. The assignments will focus on building technical skills in the production of grading plans and sections and back up calculation material.

SCHEMATIC DESIGN

This portion of the course focuses on water movement through the soil profile and plant selection based on water and sun requirements and spatial and aesthetic considerations. The assignments will emphasize the production of enlargement plans, sections, and details.

FINAL DESIGN PACKAGE

This section of the course is an introduction to the production of construction drawings and a

review of the design, construction, and administrative phases of work in professional practice. Design, grading, planting, materials, and detailing will be discussed and practiced through lectures, assignments, and the production of construction documents. Aspects of specification writing, construction management and administration will also be discussed in general terms and how they relate to the final project.

The Review and production section of the course introduces the practice of redlining, peer review and the production of composite drawings to resolve design conflicts.

Schedule (For a full description of the semester's project please refer to the Project Schedule.)

01 CONCEPT DESIGN

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| Week1 | Introduction, Page Set up.
Assignment 1- Existing Conditions
Readings: Site Engineering (SE) pgs. 68-75, 33-62, 63-68 |
| Week 2 | Page Set Up Contd., Standards
Assignment 2- Existing Conditions + Cover + Notes
Reading: SE pgs.77-100 |
| Week 3 | Concept Design Plans
Assignment 3 – Site Plan, Materials and Grading
Reading: SE pgs.101-122
Reading: SE pgs.129-145 |
| Week 4 | Concept Design Plans- Layout Plan
Assignment 4- Site Plan |
| Week 5 | Design Plans-Grading Plan
Project 1 Concept Design Issued
Readings: SE pgs.147-56, 14-156
Quiz 2 |

02 SHEMATIC DESIGN

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|--------|--|
| Week 6 | Schematic Design Plans-Grading
Assignment 5- Enlargement Plans/sections
Reading: SE pgs. 207-226, 227-243
Project 1 Concept Design Due |
| Week 7 | Schematic Design Plans Layout
Reading: SE pgs.113-128, Detailing for Landscape Architects (DLA) pgs.51-65
Assignment 6- Layout, Materials, Grading |
| Week 8 | Schematic Design Plans-Planting
Reading: SE pgs. 279-290
Assignment 7- Planting Plan/Schedule |

Week 9 Sections/Enlargements
Assignment 8-Stormwater Calculations
Readings: DLA pgs. 21-50, 67-94, 95-102

Week 10 Schematic Design Development
Reading: DLA pgs. 113-121, 127-146

03 DESIGN DEVELOPMENT

Week 11 Redlining: Constructability
Assignment 9- Notes
Reading: DLA 149-182, Landscape Architectural Standards (LAS) pgs. 432-454
Project 2 Final Design Due

Week 12 Cost Estimating and Bidding
Assignment 10- Specifications
Reading: Landscape Architectural Standards LAS pgs. 39-42

Week 13 Contracts and Construction Administration
Reading: LAS pgs. 43-48, AIA Contract Documents (AIACD) pgs.4-7,
Thanksgiving Recess

Week 14 Construction Observation/Administration
Reading: LAS pgs. 49-56, AIACD pgs. 82-106

Week 15 **Final Project Submittal**

Lecture and Lab Guidelines:

Plan your work and schedule.

Take advantage of your time in the studio.

Keep track of what has been done and what needs to be done. If you plan, you will never be late or miss a deadline.

No texting, phone calls or non-course related web searches in lecture or studio.

Readings

1. Design Workshop. 2016. Landscape Architecture Documentation Standards: Principles, Guidelines, and Best Practices. Hoboken, NJ John Wiley, and Sons.
2. Hopper, Leonard J. 2006. Landscape Architectural Graphic Standards. New York, NY: John Wiley and Sons.
3. Ryan, Tom R, Edward Allen, and Patrick Rand. 2011. Detailing for Landscape Architects. Hoboken, N.J.: John Wiley and Sons
4. Strom, Steven, Kurt Nathan, and Jake Woland. 2013. Site Engineering for Landscape Architects. 5th Edition Ed., Hoboken, N.J: John Wiley & Sons.

The course instructor will provide additional topical readings.

Grading

Course work is designed to work progressively from short assignments to larger projects. The final project will progress based on a schedule with milestone submittals. Submittals will be reviewed by a supervisor or mentor, and returned, with comments, for revision.

Revisions will continue through the semester until the work demonstrates a suitable level of proficiency. The milestone submittals and final submittal will contribute to your overall course grade. You will also be responsible to keep track of and plan your work in a Work Log.

The individual break down of your cumulative semester grade is as follows:

Type	#	(Total Value)
Assignments	10	(200 pts)
Quiz	3	(100 pts)
Exercises	3	(300 pts)
Projects	1	(600 pts)
Time Management		(100 pts)

Additional work may be requested to assure that all deliverables are complete and meet the requirements of the course.

Final letter grades will be assigned using the following scale:

A > 90%

B > 80% C > 74% D > 65% F ≤ 65%

The Department of Landscape Architecture uses the following guidelines for understanding appropriate grading in its courses:

A – Outstanding – This not only means fulfilling the requirements but impressing and going beyond the initial expectations of the project. The student has demonstrated a superior grasp of the subject matter coupled with a high degree of creative or logical expression, and strong ability to present these ideas in an organized and analytical manner.

B – Very Good – The student has demonstrated a solid grasp of the material with an ability to organize and examine the material in an organized, critical, and constructive manner. The projects and in-class performance reveal a solid understanding of the issues and related theories or literature.

C – Acceptable –The student has shown a moderate ability to grasp concepts and theories for the class, producing work that, while basically adequate, is not in any way exceptional. This performance in class displays a basic familiarity with the relevant literature and techniques.

D – Unacceptable – The work demonstrates a minimal understanding of the fundamental nature of the material or the assignment with a performance that does not adequately examine the course material critically or constructively. Students cannot graduate from the Landscape Architecture program with 2 D's in required 550 classes.

F – Failure – The student has demonstrated a lack of understanding or familiarity with course

concepts and materials. Their performance has been inadequate. Failure is often the result of limited effort and poor attendance which may indicate that the student is not in the proper field of study.

It will be the responsibility of each student to track their own academic progress throughout the semester. Interim grades will be available to students on an individual basis. Students should make an appointment with the instructor to review interim grades.

Appointments must be made at least one week in advance of any meeting.

Attendance

Attendance at scheduled Lab and Lecture sessions is mandatory. If a circumstance arises which prohibits your attendance at any class session, please notify the instructor 24-hours prior to the class and an alternate arrangement will be made. Keep in mind that your participation in class discussions and submission of in-class exercises will contribute to your overall course grade.

There will be no opportunity to make up for a missed quiz, in-class exercise, or guest lecture.

Beyond the above recommendations, this course utilizes the Department's policy on attendance which reads:

Attendance and participation in all lectures and studios are essential if the student is to achieve his/her maximum potential. More than three unexcused absences will result in a step reduction in your semester grade. Each additional three absences will result in another step reduction.

A minimum level of participation is defined as being in attendance for the entire duration of a class session. It is the student's responsibility to attend all required classes and all personal plans should be made in accordance with the schedule.

Please note that attendance will be taken at the start of each class and late arrivals will be marked as an absence.

Student Work

Submitted drawings, models, photographs, or written papers for any project assigned in Landscape Architecture courses are considered the property of the Department and may be retained in its archives for exhibition and accreditation purposes. Should your drawings be retained by the Department, you will be given the opportunity to obtain a print or photographic record of your work. Department files are otherwise not available to students.

Facilities and Accommodations

No class can be taught without reliable facilities. But your use of the facilities is dependent upon responsible use regarding the clearly established rules about their use as specified in the Student handbook. These rules cover access to studio and vandalism, table assignments, personalization of workspace, smoking and drinking, use of the lockers, access to the reference collection, and basic rules governing the use of the computer lab. Failure to observe rules may result in loss of access.

Please follow the accommodation procedures outlined at

<https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at

<https://ods.rutgers.edu/>

Equipment

The student handbook also includes a section governing the use of equipment: http://landarch.rutgers.edu/current_students/student%20handbook/StudentHandbook_web_SectlI.pdf.

This section includes rules specifying use department equipment including of projection equipment, department cameras, and drafting equipment.

Personal Circumstances

If you encounter any personal circumstances that inhibit your ability to fulfill the requirements of this course, you should contact the instructor immediately. Likewise, any student with special need, circumstance or disability should make an appointment with the instructor during the first week of class.

Academic Integrity

The intentional copying of another student's file, or portion of that file, and representation of that work as one's own, is in direct violation of Rutgers' University Integrity Policy. Please review the policy online: <http://academicintegrity.rutgers.edu/integrity.shtml#one>. Consistent with this policy, any copying and/or "sharing" of exercises, assignments and projects will be treated as Level 2 violations and subject to the sanctions as outlined in the Integrity Policy.

Student Wellness

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/ www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all the University's educational programs. To receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners

(732) 247-5555 / <https://rutgers.campuslabs.com/engage/organization/scarletlisteners>

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.