

Department of Landscape Architecture  
College of Design, Construction & Planning  
University of Florida

LAA 2379c - Design Communication 2

**SPRING 2023**

4 Credits

CIRAC Lab, ARCH 116

M,W,F, Period 3-4 (9:35 - 11:30)

Instructor: Huiqing "Hui" Kuang

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Office Hours: Thursday 10:30-11:30am or by appointment

# LANDSCAPE MODELING

## Overview:

Landscape architects are responsible for visually conveying ideas to teammates, clients, consultants, and the public. Some of the tools at a designer's disposal are pens & paper, colored pencils/markers, 3D models and computers. Landscape architects deploy these tools to explore and represent landscapes conceptually and physically.

This course advances techniques introduced in Design Communications 1 by developing student skills in digital visualization and communication strategies. The course introduces measured drawings and 2D digital representation techniques through AutoCAD. Students then progress to working with Rhino 3D modeling and digital fabrication. Rather than teaching individual software programs, this course emphasizes the integration between various softwares. Students will work fluently between hand-sketching, AutoCAD, Adobe Creative Suite, Rhino and digital fabrication.

## Objectives:

- To develop the skills in 2D measured drawing through AutoCAD
- To develop the skills in 3D digital modeling through Rhino
- To advance skills in integration among computer programs and hand-sketching
- To develop skills in digital fabrication.
- To foster the ability of self-teaching, to keep up with the constantly updating digital technologies.

## Prerequisite:

LAA2376c Design Communication 1

## Format:

On Mondays and Wednesdays, demonstrations will be held, and assignments will be introduced in class. It is critical to attend and take notes. And we will review previous weeks' assignments as a group (pin-up). Feedback will be provided verbally if necessary. On Fridays we will hold in-class workshops and Q&As.

Student work should be pinned-up before the beginning of class (9:35). Work not on display by 9:35 will be considered late! If you have to miss class, please ask a classmate to submit your work for you.

## DCP Fab Lab Membership:

Students are responsible for a one-month FabLab membership and the expense of model making materials (estimated \$50). In order to operate the laser cutting machines, students are required to attend orientation (date & time, TBD). Assignments requiring FabLab use are highlighted in yellow. Fab Lab is located just off campus in the Infinity Hall (978 SW 2nd Ave - Room 117). <https://fablab.arts.ufl.edu/>

## Content:

All course content will be available through CANVAS, UF's online learning portal. Students may access this site at <https://lss.at.ufl.edu/> by logging in with their UF credentials. Under LAA2379c, links to the course materials will be available on the course website including assignments, tutorials, reference, etc. All assignments are to be submitted to CANVAS unless otherwise indicated. Please email me through Canvas.

## Grading:

Detailed grading criteria for each offering of this course can be found in the course handout for the specific instructor and semester.

Grading will adhere to the University of Florida Grade Policy:

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Numeric Grade	100-93	92-90	89-87	86-83	82-80	79-77	76-73	72-70	69-67	66-63	62-60	59-0

According to Departmental Policy, Landscape Architecture majors must receive a C or better to move forward. Any grade lower than a C will require that the course be taken over again.

## Grading Percentages:

Participation	5%	Assignment #6 CAD to Rhino	10%
Assignment #1 AutoCAD Basic	5%	Assignment #7 SketchUp 3D Modeling Basic	10%
Assignment #2 AutoCAD Plan	10%	Assignment #8 AutoCAD to Laser Cutting	10%
Assignment #3 AutoCAD to Illustrator	10%	Assignment #9 Rhino to Laser Cutting	10%
Assignment #4 Rhino Essential Operations	10%	Assignment #10 Synthography	10%
Assignment #5 Rhino Complex Generations	10%		

## Assignment Components:

### Participation

Includes completion of in-class exercises, positive contributions to class, and ACTIVE involvement in class discussions/critiques/tutorial demonstrations.

### Assignment #1\_AutoCAD Basic

This assignment is to warm up AutoCAD basic skills and tools: model space and paper space, ctb files, layers, blocks, drafting, etc. Students will learn how to transfer a hand sketch to a CAD document.

### **Assignment #2\_AutoCAD Plan**

This assignment is to advance AutoCAD skills, such as, xref, ucs, scale, labeling and hatching, etc, by completing a landscape plan and section in CAD.

### **Assignment #3\_AutoCAD to Adobe Illustrator**

This assignment is to learn the interface between AutoCAD and Adobe Illustrator, by creating an illustrator plan for students' studio project. This assignment refines drafting skills on AutoCAD and graphic skills in Adobe Illustrator.

### **Assignment #4\_Rhino Essential Operations**

This assignment introduces fundamentals of Rhino such as navigating the interface, basic orientation techniques, planar & poly-surface creation, manipulation & extraction operations, etc.

### **Assignment #5\_Rhino Complex Generations**

This assignment is to generate complex surfaces, to explore free-form modeling techniques, and to edit a surface by manipulating control points in Rhino.

### **Assignment #6\_AutoCAD to Rhino**

This assignment is to explore the integration between AutoCAD and Rhino.

### **Assignment #7\_SketchUp 3D Modeling Basic**

This assignment is to understand the SketchUp interface; to utilize basic modeling tools, to apply materials and set scenes and styles.

### **Assignment #8\_AutoCAD to Laser Cutting**

This assignment is to learn transferring an AutoCAD drawing to a sophisticated physical model using laser cutters at DCP Fab Lab. This assignment is intended to foster AutoCAD drafting skills.

### **Assignment #9\_Rhino to Laser Cutting**

This assignment is to explore digital modeling and fabrication, especially to experiment the benefit of Rhino, that digital models can be seamlessly translated into scaled physical models, prototypes or construction documents, using laser cutters.

### **Assignment #10\_Synthography**

This assignment introduces students to a variety of artificial intelligence text-to-image based softwares, namely Stable Diffusion and Midjourney. Students will distinguish between "style" and "subject" inputs, and understand, appropriate syntax, image-based prompts, prompt weights, and key phrases.

### **Assignment Submission:**

All student work may be retained and used by the Department of Landscape Architecture. Digital Copies of student work for this course must be turned in at the completion of each assignment. No grades will be computed into the final course grade until digital submissions have been turned in as requested. Please follow the directions given by the instructor as to how they will be submitted (Sakai, CD, PDF, word file, etc.). However, all files must be named as follows:

**course# name project\_student name. dwg/pdf/jpg/ai/3dm...**

Example: 3352PlantDesAssig10\_Smith

4ch 8ch 8ch 6ch

Use caps for separation

No spaces, hyphens, or underscoring

### **Class Attendance:**

Attendance is required. Due to the nature of the course, active and engaged participation is expected and contributes to the student's final grade in the course.

In the event that a student is unable to attend class due to extenuating circumstances such as illness, or emergencies, the student shall notify the instructor as soon as possible. Students must provide documentation regarding the absence (i.e. doctor's note). Failure to notify the instructor of an absence could result in a full letter grade reduction for the final grade in the course. Three or more absences without notification or documentation will result in a failing grade for the course. Tardiness (more than 15 minutes after class begins) will count as a half absence. All decisions regarding approved or accepted requests for absence from class shall be at the discretion of the instructor. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with [university policies](#).

### Class Demeanor:

Always make sure you have your work with you so you can follow instructor demonstrations. No accommodations or extensions will be made for students who are not prepared. Always make sure your laptop and software programs are up-to-date and functional. In addition to having your project work with you, please make sure you are fully prepared with any other materials needed for class *before* class starts (i.e., mouse, print-outs, model materials, rolls of trace paper, drawing utensils, etc.). Please respect other students' work.

### Policy For Make-up Exams or Other Miss Work:

Late submissions are strongly discouraged. **Late submissions will receive a full letter grade deduction for each day past the deadline. Work submitted more than two weeks late will not be accepted.** All assignments (both in digital and hardcopy form) are due by the end of Sunday, unless otherwise noted.

*IMPORTANT:* Accommodations will NOT be made due to lost data, nor will there be granted any last-minute extensions on account of workload.

### Privacy Related Issues for Online Course Recording

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

### Evaluations:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## Disclaimer:

This syllabus represents our current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.

## Laptop and Software Requirements:

See Appendix 1: Department of Landscape Architecture Laptop and Computer Requirements

## Readings:

**LinkedIn Learning** is an incredible resource available to UF students and this class will take full advantage of them. We may have in-class “pop-quizzes” in which students will randomly be asked to demonstrate techniques; these techniques will be outlined as topics, demonstrated in class, and thoroughly explained in the tutorials.

1. AutoCAD 2021 Essential Training
2. Rhino 6 Essential Training
3. Rhino Project: Architectural Site & Envelope

### Books

1. Stephen Ervin & Hope Hasbrouck, Landscape Modeling: digital techniques for landscape visualization, McGraw-Hill Professional architecture, 2001
2. Bradley Cantrell & Natalie Yates, Modeling the Environment: Techniques and Tools for the 3D Illustration of Dynamic Landscapes, Wiley 2012 (online)
3. Elliot Gindis, Up and running with AutoCAD 2014: 2D and 3D drawing and modeling (online)
4. Bradley Cantrell & Wes Michaels, Digital Drawing for Landscape Architecture, Second edition, Wiley 2015 (online)
5. Nadia Amoroso, Representing Landscapes: A Visual Collection of Landscape Architectural Drawings, Routledge 2012 (online)
6. J. Walliss & H. Rahmann, Landscape architecture and digital technologies: re-conceptualizing design and making, Abingdon 2016

## Software:

Adobe Creative Cloud: Photoshop, InDesign & Illustrator  
AutoCAD 2022 (or higher)  
Rhino 6 (or higher)  
Discord Account (use UF email)

## Course Schedule:

Week	Contents	Assignments	Due	Instructor
<b>Module 1: AutoCAD</b>				
Week 1	AutoCAD Basic	Assignment #1	Sun. Jan 15	Bryce Donner
Week 2-3	AutoCAD Plan	Assignment #2	Sun. Jan 29	Bryce Donner
Week 4	AutoCAD to Adobe Illustrator	Assignment #3	Sun. Feb 5	Bryce Donner
<b>Module 2: 3D Modeling</b>				

Week 5 - 6	Rhino Essential Operations	Assignment #4	Sun. Feb 19	Bryce Donner
Week 7	Rhino Complex Generations	Assignment #5	Sun. Feb 26	Bryce Donner
Week 8	AutoCAD to Rhino	Assignment #6	Sun. March 5	Bryce Donner
Week 9	Sketchup 3D Modeling Basic	Assignment #7	Sun. March 12	Bryce Donner
<b>Week 10 Spring Break (March 12 - 18)</b>				
<b>Module 3: Digital Fabrication</b>				
Week 11-12	AutoCAD to Laser Cutting	Assignment #8	Sun. April 2	Huiqing Kuang
Week 13-14	Rhino to Laser Cutting	Assignment #9	Sun. April 16	Huiqing Kuang
<b>Module 4: AI-Generated Imagery</b>				
Week 15-16	Synthography	Assignment #10	Wed. April 26	Bryce Donner

## UF POLICIES

### Student Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

### Academic Honesty

The University requires all members of its community to be honest in all endeavors. When students enroll at UF they commit themselves to honesty and integrity. The faculty of Landscape Architecture fully expects you to adhere to the academic honesty guidelines you signed when you were admitted to UF. In completing the registration form at the University of Florida, every student has signed the following statement:

“I understand the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”

Furthermore, on work submitted for credit by all UF students, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is to be assumed that all work will be completed independently unless the assignment is defined as a group project by the professor. This does not mean that students cannot help one another in learning material, but all work that is turned in must be independent work of that individual.

Misrepresentation or plagiarism, such as claiming another’s work to be one’s own, refers to graphic, images, and design work as well as written work. Submitting work from one course to fulfill the requirements of another (unless expressly allowed by the instructor) is also misrepresentation.

The University Honor Code and the Department of Landscape Architecture Academic Honesty Policy are to be followed to the letter. Any students found to have cheated, plagiarized, or otherwise violated the Honor Code in any assignment will be punished according to the severity of the act and may be referred to the Honor Court. It is each student's responsibility to report any infraction, and it is expected that each faculty will report all infractions as well.

For more information, see <http://www.chem.ufl.edu/~itl/honor.html> and the Department of Landscape Architecture Academic Honesty Policy.

### Netiquette: Communication Courtesy

All members of the class are expected to follow the rules of common courtesy in all email messages, threaded discussions and chats. or a description of what is expected and what will occur as a result of improper behavior see <http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf>.

### Religious Holidays

The university calendar does not include observance of any religious holidays. The Florida Board of Governors and state law govern university policy regarding observance of religious holidays. Students shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith with prior notification to the instructor. Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence. Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

### University's Syllabus Policy

The University's complete Syllabus Policy can be found at:  
[http://www.aa.ufl.edu/Data/Sites/18/media/policies/syllabi\\_policy.pdf](http://www.aa.ufl.edu/Data/Sites/18/media/policies/syllabi_policy.pdf)

### GETTING HELP

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

[Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)

(352) 392-HELP - select option 2

<https://lss.at.ufl.edu/help.shtml>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

Counseling and Wellness resources

Disability resources

Resources for handling student concerns and complaints

Library Help Desk support

Should you have any complaints with your experience in this course please visit

<http://www.distance.ufl.edu/student-complaints> to submit a complaint.

### Counseling Resources

Students experiencing crisis or personal problems that interfere with their general well-being are encouraged to utilize the university's counseling resources. Both the Counseling Center and Student Mental Health provide confidential counseling

services at no cost for currently enrolled students. The Counseling Center is located at 301 Peabody Hall (next to Criser Hall). Student Mental Health is located on the second floor of the Student Health Services in the Infirmary. For further information on services and how to make an appointment, call the Counseling Center at 392-1575 or Student Mental Health at 392-1171. See the following websites for additional resources: Counseling Center: [www.counsel.ufl.edu](http://www.counsel.ufl.edu) and Student Mental Health: <http://www.hsc.ufl.edu/shcc/smhs.htm>

## U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.