

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

LAA 2379c - Design Communication 2
SPRING 2020
CIRAC Lab, ARC 116
9:35 - 11:30 MWF

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Hours: by appointment
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LANDSCAPE MODELING

Overview:

The impact of the work we do as landscape architect depends on our ability to visually convey our ideas to others (teammates, clients, consultants, the public). The means we have at our disposal are pens/pencils, paper, models and computers through which we explore landscapes conceptually and physically.

Advances the design communication strategies introduced in Design Communications 1 by further developing skills in digital visualization and communication techniques. The course will introduce measured drawings and 2D digital representation techniques through AutoCAD. Students then progress to working on Rhino 3D modeling and digital fabrication. Rather than teaching individual software programs, this course emphasizes the integration among them. Students will learn working fluently and in an integrated way amongst Hand-sketching, AutoCAD, Adobe Creative Suites, Rhino and digital fabrication.

Objectives:

- To develop the skills in 2D measured drawing through AutoCAD
- To develop the skills in 3D 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 Monday, 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 Wednesday and Fridays we will hold in-class workshops.

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 Scholarship:

Fab Lab student scholarships is provided by the college to LAA2379c_Spring 2019 (one time only). The college is aiming to incorporate more digital technology into required courses in Landscape Architecture. The primary goal is to provide opportunities for students to have more exposure to the possibilities and creative freedom inherent in 3D printing, Laser Cutter, and CNC.

No material & supply fees are required, but **students are responded for the expense of modeling making materials (estimated \$100-150).**

Fab Lab is located just off campus in the Infinity Hall (978 SW 2nd Ave - Room 117). <https://fablab.arts.ufl.edu/>
We will have some classes meet at Fab Lab and digital fabrication assignments completed at Fab Lab. Please see highlighted texts. To use Fab Lab equipment, we will have an orientation at the beginning of the semester.

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 #5_AutoCAD to Laser Cutting	15%
Assignment #1_AutoCAD Basic	5%	Assignment #6_Rhino Essential operations	10%
Assignment #2_AutoCAD Plan	10%	Assignment #7_Rhino Complex generation	10%
Assignment #3_AutoCAD Section	10%	Assignment #8_Rhino Precision operation	10%
Assignment #4_AutoCAD to Adobe Illustrator	10%	Assignment #9_Rhino to Laser Cutting+3D Printing	15%

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, layer, block, drafting, etc. Student 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 Section

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

Assignment #4_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 is intended to foster drafting on AutoCAD and graphic skills in Adobe Illustrator.

Assignment #5_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, to fine-tune Adobe Illustrator graphic skill, to be familiar with Fab Lab file standards and laser cutter operation.

Assignment #6_Rhino Essential operations

This assignment is to develop navigational abilities through Rhino interface; to utilize basic orientation techniques, such as planar & poly-surface creation, manipulation & extraction operations, etc

Assignment #7_Rhino Complex generation

This assignment to generate complex surfaces; to explore free-form modeling techniques; to edit surface by manipulating control points, etc.

Assignment #8_Rhino Precision operations

This assignment to explore precise extraction from surfaces, patch surface tool, curves on surface, trim/split surface tool, stretch/scale tool, etc

Assignment #9_Rhino to Laser Cutting and 3D Printing

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 3D printers and laser cutters. The assignment is to turn the Rhino model from the previous assignment into two physical models: one display the surface/form using 3D printing; the other one demonstrates the structure using laser cutting.

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. 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 prior (via email) to the start of class. Students must provide documentation regarding the absence (i.e. doctor's note). Failure to notify instructor of an intended 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.

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

Students should not use the computers unless instructed and should never use cell phones during class. The instructor reserves the right to ask disruptive students to leave, which will count as an unexcused absence.

Class Preparation:

Always make sure you have your work with you so you can participate in the in-class exercises. No accommodations or extensions will be made for students who are not prepared. 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., print-outs, rolls of trace paper, drawing utensils, etc.).

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 before the start of class unless otherwise noted.

If a student suffers undue hardship and is not able to meet a submission deadline, they may make a formal request for an extension to the course instructor **prior** to the deadline. The student must email the course instructor informing the instructor of the situation that warrants consideration for an exception (death in the family, serious illness) with documentation as required by the University.

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

Accommodations for students with disabilities:

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.

Getting Help:

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

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.

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. Your instructor 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 the 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 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.

Student Accommodations:

Students with disabilities requesting classroom accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

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 web sites for additional resources: Counseling Center: www.counsel.ufl.edu and Student Mental Health:

<http://www.hsc.ufl.edu/shcc/smhs.htm>

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.

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.

Readings:

LinkedIn Learning are 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 2016 Essential Training
2. Rhino 5 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)

Advance Reading

1. J. Walliss & H. Rahmann, Landscape architecture and digital technologies : re-conceptualising design and making, Abingdon 2016
2. Daniel Tal, Rendering in SketchUp: From Modeling to Presentation for Architecture, Landscape Architecture and Interior Design, John Wiley & Sons 2013 (online)
3. Daniel Tal, Sketchup for site design : a guide to modeling site plans, terrain and architecture, Wiley 2016

Software:

Adobe suite: Photoshop, Indesign & Illustrator CS5 (or higher)

AutoCAD 2013 (or higher)

Rhino 5 (or higher)

Schedule:

AutoCAD

Week 1 & 2	AutoCAD basic
Week 3 - 5	AutoCAD 2D modeling
Week 6 & 7	AutoCAD to Adobe Illustrator
Week 8	Field Trip
Week 9	Spring Break

Fabrication A

Week 10	AutoCAD to Laser cutting
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Rhino

Week 11	Rhino essential operations
Week 12	Rhino complex generation
Week 13	Rhino precision operations

Fabrication B

Week 14 & 15	Rhino to Laser Cutting and 3D printing
Week 16	PIN-UP Digital Portfolio