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

LAA4394 - Advance Design Communication
SPRING 2022
3 Credit
CIRAC Lab, Weil 408D
Period 2-3 (8:30 - 10:25) Tu & Th

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Office Hours: Thursday 11-12 or by appointment

Digital Media in Landscape Architecture

Course Overview:

Advances the design communication strategies introduced in Design Communications 1 & 2, this course will further develop skills in digital visualization and communication techniques. The course will explore digital media as a powerful tool in landscape architecture design and fabrication.

Students will learn working fluently and in an integrated way among Rhino and Adobe CC to produce high-quality perspectives and design diagrams. Student will also learn intermediate to advanced modeling skills in Rhino with V-Ray for Rhino. Students will then expose to digital fabrication techniques.

Course Objectives:

- To develop the skills in rendering in Rhino with V-Ray/Lumion
- To develop the skills in produce photorealist perspectives and design diagram for presentation.
- To develop skills in 3D modeling using Grasshopper in Rhino.
- To develop advanced skills in digital fabrication.
- To foster the ability of self-teaching, to keep up with the constantly updating digital technologies.

Prerequisite:

Students are required to have completed LAA2376c Design Communication 1; and LAA 2379c Design Communication 2. Students are expected to have essential training on AutoCAD, Rhino, Adobe CC; the ability to develop digital and hand graphics, and the skills developed in the prerequisite course.

Format:

Demonstrations, lectures and pin-ups (review previous weeks’ assignments as a group) will be held on Tuesdays. Student work should be submitted to CANVAS before the beginning of section. Feedback will be provided verbally if necessary. Then workshops follow in the second section and on Thursdays. It is critical to attend and take notes.

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 LAA4394, 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 #3_ Grasshopper Project 2	15%
Exercise i_ Rhino Modeling Review	5%	Assignment #4_ V-Ray Rendering Basic	10%
Assignment #1_ Grasshopper Basic	20%	Assignment #5_ Lumion Rendering Basic	10%
Assignment #2_ Grasshopper Project 1	15%	Assignment #6_ Final Project	20%

Assignment Components:

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

Assignment #1_Grasshopper Basic
This assignment to introduce Grasshopper, a graphical algorithm editor tightly integrated with Rhino, for 3D modeling. Students will be asked to complete 5 exercises to get familiar with Grasshopper parameters, components and definition.

Assignment #2_Grasshopper Project 1
This assignment is to develop Rhino+Grasshopper skills by design/modeling an object. Then students will use the equipment from UF Fab Lab to translate their design into a physical model.

Assignment #3_Grasshopper Project 2
This assignment is to develop Rhino+Grasshopper skills by design/modeling a terrain. Then students will use the equipment from UF Fab Lab to translate their design into a physical model.

Assignment #4_V-Ray Rendering Basic
This assignment is to develop professional rendering skill using Rhino model, get to know V-Ray rendering plug-in: setting up lights and camera, applying materials, background etc. Student will render a view from a set of simple 3D geometry, such as a bioswale, a stormwater planter, etc. Then students will be asked to edit the rendering in Photoshop and Illustrator, to complete a sectional perspective to present the functional idea behind the view.

Assignment #5_Lumion Rendering Basic
This assignment is to develop professional rendering skill using Rhino/SketchUp model, get to know Lumion rendering, such as, setting up views, applying materials, background etc. Student will render a view from a simple courtyard 3D model.

Assignment #6_Final Project
This assignment is intended to foster the skills of the integration between various programs, AutoCAD, Rhino (V-Ray) and

Adobe CC, etc. Option 1 is to advance Rhino + V-Ray and Adobe Photoshop skills. Students will be asked to produce a photorealism perspective, using Rhino for 3D modeling, V-Ray for rendering, from one of their own design studio projects. Option 2 is to advance Illustrator + After Effects and Adobe Photoshop skills. Students will be asked to produce an animation to explain/present one of their own design studio projects.

Assignment Submission:

All student work may be retained and used by the Department of Landscape Architecture. Physical models of student work for this course must be turned and displayed, per instructor's direction. 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 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 are due before the start of class 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.

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 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. Architectural Rendering with Rhino and V-Ray
2. Learning Grasshopper (Beginners)
3. Grasshopper Essential Training (Intermediate)
4. Rhino Project: Architectural Site & Envelope
5. After Effects 2020 Essential Training: The Basics

Books

1. Nadia Amoroso, Representing Landscapes: Digital, Routledge 2015
2. Nadia Amoroso, Representing Landscapes: Hybrid, Routledge 2016
3. Bradley Cantrell & Wes Michaels, Digital Drawing for Landscape Architecture, Second edition, Wiley 2015 (online)
4. Bradley Cantrell & Natalie Yates, Modeling the Environment: Techniques and Tools for the 3D Illustration of Dynamic Landscapes, Wiley 2012 (online)
5. Bradley Cantrell, Responsive Landscapes: Strategies for Responsive Technologies In Landscape Architecture, Routledge, 2016
6. Stephen Ervin & Hope Hasbrouck, Landscape Modeling: digital techniques for landscape visualization, McGraw-Hill Professional architecture 2001
7. Elke Mertens, Visualizing landscape architecture, Birkhauser 2010
8. Clemens M. Steenbergen, Composing landscapes : analysis, typology and experiments for design, Birkhauser 2008
9. Karen M’Closkey, Dynamic patterns: visualizing landscapes in a digital age, Routledge, 2017
10. Jillian Walliss & Heike Rahmann, Landscape Architecture and Digital Technologies: Re-conceptualizing design and making, Routledge, 2016
11. Liat Margolis, Alexander Robinson, Living systems, Birkhauser 2007
12. Arturo Tedeschi, AAD Algorithms-Aided Design. Parametric strategies using Grasshopper, Le Penseur, 2014

Useful Links

1. Grasshopper3d.com https://www.grasshopper3d.com/page/tutorials-1
2. Grasshopper Primer from Modelab https://www.modelab.is/grasshopper-primer/
3. Food4Rihno https://www.food4rhino.com/
4. Rhino3d.com https://www.rhino3d.com/tutorials
5. V-Ray https://www.chaosgroup.com/resources
6. Lumion https://lumion.com/

Course Schedule:

Week	Contents	Assignments	Due
Week 1	Rhino Modeling Review	Exercise i	Tue. Week 2
Week 2-5	Grasshopper Basic	Assignment #1	Every Tue.
Week 6-7	Grasshopper + Digital Fabrication	Assignment #2	Tue. Week 8
Week 8-9	Grasshopper + Application	Assignment #3	Tue. Week 10
Week 10	Spring Break		
Week 11-12	Rendering _ Sectional Diagram	Assignment #4	Tue. Week 12
Week 13	Rendering _Courtyard	Assignment #5	Tue. Week 14
Week 14-15	Final Project	Assignment #6	Fri. Week 15

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

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.

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 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 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.