

LAA4356

## Environmental Planning Design Studio

UF Department of Landscape Architecture

Fall 2024

### SYLLABUS

#### I. General Information

CLASS MEETINGS: 100% In-Person, Monday, Wednesday, Friday. Periods 7, 8, 9 (1:55 pm – 4:55 pm)

LOCATION: ARCH 316

CREDITS: 6 Credits

INSTRUCTOR: Dan Farrah

Office Hours: By appointment via email or as arranged during class

[dfarrah@ufl.edu](mailto:dfarrah@ufl.edu)

#### COURSE DESCRIPTION

This design studio provides an introduction to environmental planning and leads students through regional scale design decision-making process using GIS and land use suitability analysis techniques. Decisions made at a regional scale are used to inform GIS analysis, decision-making and design at an individual site scale.

In the first half of the semester, working within a multi-county study area, students will define goals and objectives for future land use decisions as they relate to suitability for conservation, agriculture, or future urban land uses. These goals and objectives will be used to guide a regional GIS analysis to identify future suitability for each of the three land use categories within the study area. Students will then work in groups to synthesize this information and create a composite land use suitability map for the study area. Finally, students will conduct individual projects in the second half of the semester based on the results of the initial regional studies.

#### PREREQUISITE KNOWLEDGE AND SKILLS

This class builds upon the principles and technologies introduced in previous lecture classes and design studios. Students are required to have completed LAA 4353 or URP 4273.

#### REQUIRED READINGS AND WORKS

Carr, Margaret and Zwick, Paul. Smart Land-Use Analysis: The LUCIS Model is the primary text used for this course.

McHarg, Ian. Design with Nature

All required readings can be found on Canvas.

Materials and Supplies Fees: see schedule of courses.

Drafting supplies required of all studio courses including drafting paper and color pencils or markers

The following software is required:

ArcGIS Pro (latest version)

MS Office (Word, Excel and PowerPoint)

Adobe Suite Products (Photoshop)

Adobe Acrobat Reader or other PDF reading software

## II. Student Learning Outcomes (SLOs)

Each student in the LA program is expected to understand and apply the design process and continuously develop:

- a range of approaches (creative, cultural, and/or historic) to create spatial and temporal landscape compositions,
- multiple design alternatives before synthesizing ideas into a defensible plan and
- the ability to thoughtfully provide, receive, and respond to feedback and critique as part of iterative design decision making.

At the end of this course, students will be expected to have achieved the developing course learning objectives (CLOs) under the program SLO headings as follows:

<b>CONTENT</b>
<b>SLO 1 – Integrate concepts from the general body of knowledge of the profession of landscape architecture in design decision-making.</b>
CLO 1 - Integrate the history and theories of landscape architecture to planning and design decisions in the built and natural environment with consideration for human and ecological contexts.
<b>CLO 2 - Demonstrate an understanding of basic site design and planning principles</b>
<b>CLO 3 - Demonstrate and evaluate personal effectiveness as a leader and collaborator on multidisciplinary team</b>
<b>SLO 2 - Apply core professional landscape architecture skills in design decision-making.</b>
CLO 4 - Apply the design process across multiple scales and multiple contexts.
CLO 5 - Apply knowledge of natural, physical, and social sciences to the development of comprehensive site-specific design solutions.
CLO 6 - Analyze site characteristics, including topography, climate, vegetation, and existing structures, to apply the appropriate organization of space and forms within the landscape.
<b>SLO 3 - Apply ethical understanding to design decision-making.</b>
CLO 7 - Examine the legal responsibilities and the role of landscape architecture in preserving and safeguarding human health, safety, and the public welfare through site design and planning.

<b>CRITICAL THINKING</b>
<b>SLO 4 – Combine and analyze information from multiple sources to support design decision-making.</b>
CLO 8 - Implement ideas that are grounded in the evaluation of data and the natural, physical, and social sciences to make informed design decisions that address and balance aesthetic, environmental, and social issues and goals.
CLO 9 - Evaluate spatial data relative to the physical, biotic, climatic and cultural context of projects and integrate findings to validate design decision making.

CLO 10 - Synthesize objective and subjective information from multiple sources and apply ecological principles to support design decision making.
CLO 11 – Analyze issues to understand the interrelationship between ecosystems, climate, and humans and evaluate the effectiveness of design solutions to mitigate climate and ecosystem harm.
CLO 12 – Evaluate the suitability of a program to multiple sites and prioritization of a site based on the defined program.

<b>COMMUNICATION</b>
SLO 5 – Produce professional visual, oral, and written communications.
CLO 13 – Articulate the criteria and methodology used in an evaluation of a site or program.
CLO 15 – Express ideas concretely through oral and visual communication.

### III. Graded Work

#### DESCRIPTION OF GRADED WORK

##### Task 1- Inventory (10% of total grade)

Students will conduct basic regional character research for the study area (Group)

##### Task 2 – Analysis (25% of total grade)

Use goals and objectives to direct suitability analysis for agriculture conservation, and urban uses within the study area. (Individual)

##### Task 3 – Synthesis (10% of total grade)

Work within groups to identify opportunities and constraints for future use within the study area, overlaying results from the regional suitability analysis as well as identifying conflicting land uses. (Group)

##### Task 4 – Individual Projects (25% of total grade)

Develop individual projects to focus on topics such as habitat preservation, ecotourism, trail development, green belt identification, or cultural resources within the study area based on the results of the suitability analysis developed in the first portion of the semester. (Individual)

##### GIS Exercises (20% of total grade)

Complete a series of GIS exercises based on in-class lectures to build understanding and proficiency in ArcGIS. (Individual)

##### GIS Quizzes (10% of total grade)

Quizzes will be given based on the knowledge and skills developed through GIS lectures, in-class GIS assignments, and GIS homework.

The graded work assesses the course learning objectives as follows:

Assessment	LAA 4356 - Course Learning Objectives (CLOs)													
	SLO 1			SLO 2			SLO 3	SLO 4				SLO 5		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Inventory	•		•	•		•						•		•
Analysis	•	•	•	•				•	•	•	•	•	•	•
Synthesis	•	•		•	•		•	•	•			•	•	•
Individual Projects	•	•		•	•	•	•	•	•	•	•	•	•	•
GIS Exercises				•		•								•
GIS Quizzes												•		•

### GRADING SCALE

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	93 – 100%		C	73 – 76%
A-	90 – 92%		C-	70 – 72%
B+	87 – 89%		D+	67 – 69%
B	83 – 86%		D	63 – 66%
B-	80 – 82%		D-	60 – 62%
C+	77 – 79%		E	<60

As per department 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.

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. Please follow the directions given by the instructor as to how they will be submitted (e.g., Canvas, CD, PDF, word file, etc.). If an assignment is required to be scanned, it must be scanned; photographs of assignments are not acceptable. If a multipage PDF is requested, do NOT submit each page as a separate PDF. It must be submitted as one file. Point deductions on the assignment may result from not following submittal directions or providing incorrect submittal or file formats.

Studio projects and GIS exercises are expected to be submitted by the specified due date. If no prior arrangement is made with the instructor for a late submittal, the maximum points that the student can earn for the project will be reduced by 10% for every day it is late. Projects are out of 100 points. Therefore, if a 100-point project is one day late, the maximum points that the student can receive for the project is 90 points (i.e., 90% of the total grade). If the student receives the equivalent grade of an 85% on the project, the student would receive 76.5 points (85% of 90 points). Timely submission of exercises is included as part of the activity rubric.

A due date and time will be provided for every assignment, and an assignment is considered a day late if it is submitted after the specified date and time. The deadline is a hard deadline; no exceptions will be

made for scanning, computer related issues, uploading, et cetera. Assignments are considered an additional day late every 24 hours from the due date.

Assignment submissions may be updated and re-uploaded to the Canvas site as needed prior to a submittal deadline. Once the deadline has passed for an assignment and a submission has been made, additional submittals are not guaranteed to be accepted. If the updated, late submittal is accepted, the entire submittal will be considered late and points will be deducted based on the date of the late submission. In addition, it is the student’s responsibility to ensure that a submission is complete; missing items will not be given credit.

#### IV. Annotated Weekly Schedule

Week	Topics, Homework, and Assignments
Week 1	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Introduction to Course, ArcGIS Pro, and Regional Planning</li> <li>• <b>Summary:</b> This week students will review the course syllabus, course objectives, schedule, and install ArcGIS Pro. They will also learn about regional planning and suitability modeling including using hand drawn methods of suitability analysis. (CLO# 1)</li> <li>• <b>Required Readings/Works:</b> Design with Nature pages p.31-41</li> <li>• <b>Assignment:</b> Hand Overlay Assignments 1 &amp; 2 (CLO# 1, 4, 12, 14)</li> </ul>
Week 2	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Vector GIS and suitability analysis by hand (Task 1)</li> <li>• <b>Summary:</b> This week students will continue work on suitability analysis by hand using more complex examples and exercises. We will also explore the ArcGIS Pro layout and vector analysis. (CLO# 1, 3, 4, 6, 12)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b> Hand overlay assignment 3, GIS homework 1 (CLO# 1, 4, 12, 14)</li> </ul>
Week 3	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Using tabular data in ArcGIS and regional character research</li> <li>• <b>Summary:</b> This week students will learn how to import tables from Excel into ArcGIS and begin analysis of the project area through regional character studies in small groups (CLO# 1, 3, 4, 6, 12, 14)</li> <li>• <b>Required Readings/Works</b></li> <li>• <b>Assignment:</b> GIS Homework 2 (CLO# 14)</li> </ul>
Week 4	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Creating maps and regional character analysis</li> <li>• <b>Summary:</b> This week students will learn how to make maps and export them using ArcGIS Pro. Students will continue to work on regional character research. (CLO# 1, 3, 4, 6, 12, 14)</li> <li>• <b>Required Readings/Works:</b> Chapters 6-8 Smart Land-Use Analysis</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Assignment:</b> GIS Homework 3 &amp; 4 (CLO# 14)</li> </ul>
Week 5	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Raster analysis and suitability using ArcGIS and continue work on regional character research</li> <li>• <b>Summary:</b> This week will introduce the students to raster analysis using ArcGIS Pro. This will serve as the foundation for future projects in this course. (CLO# 1, 3, 4, 6, 12, 14).</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b> GIS Homework 5 (CLO# 4, 6, 14)</li> </ul>
Week 6	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Raster analysis and land use suitability and opportunities analyses (Task 2)</li> <li>• <b>Summary:</b> Students will learn additional raster analysis tools and methods. Students will also explore the development of goals and objectives to be used in suitability analysis for the study area. Students will present their research for the regional character analyses. (CLO# 4, 6, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b> GIS Homework 6 (CLO# 4, 6, 14)</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Suitability analysis (Task 2)</li> <li>• <b>Summary:</b> This week, students will take the knowledge and skills developed during the semester and conduct land use suitability and opportunities analyses in small groups. The products of this task will be used for individual projects in Task 4. Students will learn several tools used in raster analysis. Students will focus on suitability analysis for the study area using the goals, objectives, and sub-objectives. (CLO# 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 8	<ul style="list-style-type: none"> <li>• <b>Topic:</b> West Coast Field Trip</li> <li>• <b>Summary:</b> Class will not be held due to the west coast field trip</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 9	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Suitability analysis (Task 2)</li> <li>• <b>Summary:</b> Students will continue to work on suitability analysis for the study area. (CLO# 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 10	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Synthesis (Task 3)</li> <li>• <b>Summary:</b> Students will present their suitability analyses to the class. This will allow all students to understand the suitability data available for their individual final</li> </ul>

	<p>project. Students will integrate suitability analyses from each group into final suitability maps for agriculture, conservation, and urban uses. We will explore how to identify conflict between the three land use categories. (CLO# 1, 2, 4, 5, 7, 8, 9, 12, 13, 14)</p> <ul style="list-style-type: none"> <li>• <b>Required Readings/Works:</b> Chapter 10 Smart Land-Use Analysis</li> <li>• <b>Assignment:</b> suitability presentation (CLO# 3, 13, 14)</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Individual projects (Task 4)</li> <li>• <b>Summary:</b> Students will develop ideas for their final project based on the suitability analyses from Tasks 2 and 3. (CLO# 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Individual projects</li> <li>• <b>Summary:</b> Students will continue to work on individual final projects. (CLO# 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 13	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Individual projects</li> <li>• <b>Summary:</b> Students will continue to work on individual final projects. (CLO# 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 14	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Individual projects</li> <li>• <b>Summary:</b> Students will continue to work on individual final projects. (CLO# 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 15	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Thanksgiving Break</li> <li>• <b>Summary:</b></li> <li>• <b>Required Readings/Works:</b></li> <li>• <b>Assignment:</b></li> </ul>
Week 16	<ul style="list-style-type: none"> <li>• <b>Topic:</b> Final project presentations</li> <li>• <b>Summary:</b> This week, students will present their final projects to faculty. (CLO# 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14)</li> <li>• <b>Required Readings/Works:</b></li> </ul>

## VI. Required Policies

### ATTENDANCE POLICY

Attendance is mandatory. Students are expected to arrive on time. Acceptable reasons for excused absences are as follows:

- o Illness
- o Serious family emergency
- o Special curricular requirements (e.g., judging trips, field trips, professional conferences)
- o Military obligation
- o Severe weather conditions
- o Religious holidays
- o Participation in official university activities such as music performances, athletic competition or debate.
- o Court-imposed legal obligations (e.g., jury duty or subpoena)

If necessary, students shall be permitted a reasonable amount of time to make up material or activities covered in their excused absence; however, absences do not affect project deadline dates unless prior arrangements have been made.

Studio work time and desk critiques are essential to the learning experience; therefore, attendance is expected for the entire class time. During the studio (critique) portion of the course, it is expected that all students will be in attendance for the entire class and working on LAA 4356 assignments. Arriving late to class, leaving during class for extended durations, or leaving early from class may be considered being absent from class.

The instructor will not provide the student notifications regarding absences and tardiness. You may email the instructor should you have any questions regarding your attendance. Please schedule an office meeting for any discussions regarding attendance, tardiness, and late assignments. Do not discuss these issues with the instructor during studio time.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### STUDENTS REQUIRING ACCOMMODATION

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.

### UF EVALUATIONS PROCESS

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/>.

## UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## COUNSELING AND WELLNESS CENTER

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

## COURSE MATERIALS AND IN-CLASS RECORDINGS

The digital course materials provided on Canvas (e.g., lectures, assignments, quizzes, et cetera) are provided for personal study and are not intended for distribution by electronic or other means. Further distribution or posting on other websites is not permitted.

Our class sessions may be audio visually recorded. 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 participate orally are agreeing to have their voices recorded.

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section.

Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.