Landscape Construction I

<u>LAA 3420</u> Fall 2019

Fall 2019		D. Manley			
SYLLABUS					
Class meeting times:	M W F 7 th Period – 9 th Period (1:55 PM – 4:55 PM)				
Studio/Lecture:	322 ARC				
Credits:	5				
Instructor:	Daniel Manley, PLA, LEED-AP, ASLA				
Office:	434 ARC				
	352-294-1442				
	<u>dpmanley@ufl.edu</u>				
Office hours:	T 7 th Period – 8 th Period (1:55 PM -3:50 PM) and by appoint	ment			
Canvas e-learning Website:	http://elearning.ufl.edu				

Course Overview

The first course in Landscape Construction is designed to integrate the theories and principles of landscape architectural design with the important technical skills necessary to document and construct the work. These skills include grading, drainage, stormwater management, and road/pathway geometry. These skills will be applied through hand drawings, study models, and CAD drawing production in the form of construction documents.

Course Objectives

- To understand and apply skills in the siting and grading of structures and surfaces in the landscape. Also, to apply earthwork calculations and understand their role in design implementation.
- To develop discipline, accuracy and graphic communication skills necessary to produce contract document drawings.
- To understand and apply the principles of drainage and stormwater management in relation to grading and other expressions of landscape design. Also, to develop related drainage structure details.
- To understand and apply the principles of horizontal and vertical road alignment.

Prerequisite Knowledge and Skills

Students are required to have completed LAA2376 and 2379: Design Communication 1 & 2. Students are expected to have a foundational knowledge of the design process, a basic understanding of AutoCAD, and the skills developed in the prerequisite courses to produce digital and hand-drawings.

Teaching Philosophy

The course will be a combination of lectures and in-class and out-of-class studio work. The lecture portion of the course will be taught in a logical, step-wise manner that is process-oriented and builds upon topics presented each week. The studio portion of class will provide the student opportunities to apply the concepts presented in the lectures through various exercises and assignments. As the learning process is largely based on feedback and criticism of work, the student's self-motivation and preparedness for class are critical to the success of the student.

Instructional Methods

Course instruction will be a combination of lectures, readings, field visits, and individual instruction/desk critiques of student work. Methods by which students are evaluated and graded may include in-class exercises, problem sets, design projects, online quizzes, and participation.

COURSE POLICIES

Class Attendance and Participation

- **Participation in class is critical**. <u>Attendance is mandatory</u>, and students are expected to arrive on time.
- Studio work time and desk critiques are essential to the learning experience; therefore, attendance is expected for the entire class time. During the studio (desk instruction) portion of the course, it is expected that all students will be in attendance for the entire class and working on LAA3420 assignments. Arriving late to class, leaving during class for extended durations, leaving early from class, or working on assignments from other courses may be considered being absent.
- Work must be done in the studio and computers must be brought to class; instruction will not be given outside the studio during class times (e.g., in the computer lab).
- 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.

Class Demeanor

- Please schedule an office meeting for any discussions regarding attendance, tardiness, and late assignments. Do not discuss these issues with the instructor while in the studio.
- Studios are public places. The studio doors are locked, however, it is also suggested that you store any valuables under lock or bring them home with you.
- Cell phones <u>must be turned off</u> during class.
- Working on your computer during lecture is not permitted unless you are taking notes.
- Please respect other students work. Due to tight quarters, it is especially important to keep spaces and common spaces clean. Also be mindful and respectful of playing music and other audio.
- Many classes will include "desk crits" at each student's desk. It is expected that your desk be orderly and you have a scale and a roll of trace available when the instructor arrives at your desk.

Submission of Student Work

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.

All files must be named as follows:

(Course#Name)(Project+Description)(Student-Lastname).(pdf)

Example:

3420LAConst1GradPlanSmith.pdf

- 4ch 8ch 8ch 6ch (ch = letter characters)
- Use CAPS for Separation
- Save images in <u>PDF format</u> at a maximum 200 resolution
- *No spaces, hyphens, or underscoring*

Texts, Software and Other Resources

The following texts are required:

• Strom, Nathan, and Woland; *Site Engineering for Landscape Architects*, Sixth Edition (this text can be found as an e-book on UF's library website; however, it is recommended that you have a hardcopy of the book)

Other useful texts that are recommended for review:

- Echols, Stuart, and Eliza Pennypacker. *Artful Rainwater Design : Creative Ways to Manage Stormwater*. Island Press, 2015. A pdf of this book can be found on UF's library website. There will be required readings in this book.
- Ferguson, Bruce K.; Introduction to Stormwater : Concept, Purpose, Design; First Edition
- Aymer, Valerie; Landscape Grading: A Study Guide for the LARE Grading Examination
- Harris and Dines; Timesaver Standards for Landscape Architecture; Second Edition

• Hopper, Leonard J. *Landscape Architectural Graphic Standards*. John Wiley & Sons, 2007. The following software is required:

- AutoCAD Civil3D You must back save all files to a file format that supports AutoCAD 2017.
- Boot Camp or Parallels (to run AutoCAD Civil3D in Windows environment for Mac users)
- Rhino (can be done through UF Apps; however, a purchased individual license is highly recommended)
- Adobe Creative Suite including Acrobat Reader (or similar pdf reader)
- MS Office (Word, Excel and Powerpoint)

All students are required to have a laptop computer that meets the Department's computer requirement. If a Mac is being used, you must run AutoCAD Civil 3D in a Windows environment such as Boot Camp or Parallels. Do not wait to install this. In addition, a stand-alone, scientific calculator is recommended for this class.

Materials

In addition to drafting supplies required of all studio courses, you will also need the following materials:

- 2 lbs of kinetic sand
- Approximately 11"x11" tray to contain sand
- Fab Lab Membership: The course will utilize UF's Fab Lab for portions of the course. You will be required to purchase a Fab Lab membership. In addition, you will be required to provide the necessary materials to use the Fab Lab (e.g., chipboard) as well as any material/setup costs required by the Fab Lab (e.g., 3D Printer Costs).

Mandatory Field Trip

A mandatory field trip is part of the curriculum of this course (in conjunction with LAA3352c - Planting Design). The anticipated destinations for the trip are Portland and Seattle. An estimate of trip costs will be provided at the beginning of the semester.

Additional Course Fees

There are additional course fees for this course (i.e. a materials and supplies fee as well as an equipment and technology fee). The amount of total additional course fees can be found on the UF Schedule of Courses website.

Course Materials on Canvas

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.

Communication

Students may contact the instructor via phone, email, or in-person. Email is the primary communication method to contact the instructor outside of class time and office hours. Please use the email address listed above. Also, please only communicate with your instructor using your ufl.edu account or through the Canvas message system. Do not send emails from other accounts such as gmail.

UF POLICIES

Student Accommodations

Support services for students with disabilities are coordinated by the Disability Resource Center in the Dean of Students Office (352-392-8565, www.dso.ufl.edu/drc/). To obtain individual support services, each student must meet with a support coordinator in the Disability Resources Program who will work with the individual student and the instructor to determine appropriate support strategies. There is no requirement for a student to self-identify his/her disability; however, students with disabilities requesting accommodations should first register with the Dean of Students Office. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Appropriate documentation regarding the student's disability is necessary to obtain any reasonable accommodation or support service. Students with disabilities should follow this procedure as early as possible in the semester. Accommodations will be provided once the accommodation letter is presented to the instructor.

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 instructor. 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 <u>http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</u> and the Department of Landscape Architecture Academic Honesty Policy.

Netiquette: Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. For a description of what is expected and what will occur as a result of improper behavior see the University's <u>Netiquette Guide for Online Courses</u>.

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.

GETTING HELP

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

- Learning-support@ufl.edu
- (352) 392-HELP select option 2
- <u>https://lss.at.ufl.edu/help.shtml</u>

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.

Counseling Resources

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 <u>umatter@ufl.edu</u> 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.

GRADING POLICIES

Course grades will be based on problem solving skills as they relate to the accomplishment of the objectives. Grading will adhere to the University of Florida Grade Policy:

Letter Grade	Α	A-	B+	В	B-	C+	С	C-	D+	D	D-	Ε
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
Quality Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0

For greater detail, see the Registrar's Grade Policy regulations at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

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.

Students will be evaluated based on assignments the below. Course grades will be based on the following approximate weighting (subject to change):

Description	Percentage of Total Grade
Assignment 1: Landform Overlook	25%
Assignment 2: Field Trip	10%
Assignment 3: Residential Grading	20%
Assignment 4: Swale at UF	20%
Assignment 5: Stormwater Modeling	15%
In-class Assignments	10%
Total Assignment Points	100%

Assignments 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 assignment will be reduced by 5% for every day it is late. For example, if a 30 point assignment is two days late, the maximum points that the student can receive for the assignment is 27 points (i.e., 90% of 30). If the student receives the equivalent of an 85% on the assignment, the student would receive 25.5 points (85% of 27 points). 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. An additional 5% reduction will be assessed every 24 hours from the due date. Assignments that are ten days late or more will be graded out of 50% of the total points of the assignment. Late assignment will be accepted on or before the last day of class. A grade of zero will be given until the assignment has been turned in.

Students will be allowed one day late on one assignment without penalty for the entire semester.

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.

Evaluation of Faculty

Students in this class are participating in the pilot evaluation of the new course evaluation system called GatorEvals. The new evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF's CANVAS learning management system. Students can complete their evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Please note your other classes this semester may be evaluated in the current GatorRater online evaluation system at https://evaluations.ufl.edu. Thank you for serving as a partner in this important effort.

Week	Week Starting	Торіс	Assignments
1	8/21	Slope and Contours	Assigned: A01- Landform Overlook
2	8/26	Interpolation Grading Linear Pavements	
3	9/2	Grading Swales and Berms No Class: September 2	
4	9/9	Grading Terraces and Planes Modeling in Civil 3D	
5	9/16	Introduction to Stormwater	Due: A01 – Landform Overlook Assigned: A02 – Field Trip
6	9/23	Class Field Trip (Seattle/Portland)	
7	9/30	Introduction to Site Grading No Class: October 4	Due: A02 – Field Trip Assigned: A03 – Residential Grading
8	10/7	Grading Vertical Transitions (Walls and Stairs), Grading Around Buildings	
9	10/14	Fab Lab Orientation Introduction to Fluid Mechanics	
10	10/21	Manning's Equation	
11	10/28	Fab Lab Work Week	Due: A03 – Residential Grading Assigned: A04 – Swale at UF
12	11/4	Pipe Sizing Rational Method	Due: A03 – Residential Grading (Model)
13	11/11	Modified Rational Method No Class: November 11	
14	11/18	Earthwork	Due: A04 – Swale at UF Assigned: A05 – Stormwater Modeling
15	11/25	Horizontal Road Alignment No Class: November 28 and 29	
16	12/2	Vertical Road Alignment Final Class: December 4	Due: A05 – Stormwater Modeling

LAA3420 - Weekly Course Schedule (subject to change)