

LAND 612 Landscape Architecture Site Development

Fall 2007

Instructor

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Office hours: to be determined

Course Time and Location

TR 9:00-9:50 and 10:10-11:50; Langford MLA Studio

Course Description

Landscape Architecture Site Development provides a technical background and practical exercises in the fundamental knowledge and skills of Grading, Earthwork, Drainage, Hydrology and Surface Hydraulics, and Transportation Planning and Basic Geometric Design.

Learning Objectives

The objectives of the course are:

1. To acquire an entry level knowledge and skill in the principles of land form manipulation and preparation of grading plans and to demonstrate their knowledge by achieving passing scores on examinations and practical exercises in preparation of grading plans;
2. To acquire an entry level knowledge and skill in the computation of earthwork volumes and to demonstrate their proficiency by achieving passing scores on written examinations and successful completion of practical earthwork computation exercises;
3. To acquire an entry level knowledge and skill in the use of computer spreadsheets applied to earthwork calculations by developing basic spreadsheets for earthwork projects;
4. To acquire basic knowledge in hydraulics, hydrology, drainage design and the analysis of surface hydraulics and demonstrate that knowledge by achieving passing grades on a written examination and successfully completing a studio exercise in drainage design and analysis;
5. To acquire a general understanding of intermodal transportation planning and to acquire an entry level understanding of the geometric design of highways and streets and demonstrate that understanding by achieving a passing score on a written examination and successfully completing a street alignment project.

Required Textbook

Site Engineering for Landscape Architects. 4th Ed. By Strom, S., K Nathan and J. Woland (2004). John Wiley and Sons, Inc.

Suggested Reference

Landscape Architecture Construction, 3rd Ed. By Landphair, H.C. and Fred Klatt (1998), Prentice-Hall, New York, NY

Course Logistics

You are required to bring a scientific calculator to the class. You are also encouraged to bring your personal notebook PC. In addition, you need to supply your own drafting materials, including pencils, tracing paper, tapes and so on. Digital course materials such as handouts, homework, in-class assignments and supplemental readings will be stored in the “class folder” of the College of Architecture. You must check on new releases constantly and download them for use.

Evaluation

Homework	20%
Studio exercises	20%
In-class assignments	10%
Term Paper	10%
Presentation (reading summary and term paper)	10%
Quizzes (or class participation)	5%
Exams	25%

Grading Policy

A = 90%+, B = 80 to 89.9, C = 70 to 79.9, D = 60 to 69.9, F = below 60.

Homework – Homework assignments should be neatly finished. All calculations and units should be clearly written. The due date for each homework will be indicated when it is assigned. Typically, the due date is one week after it is issued and the assignment will be collected in the beginning of the class. Late homeworks that are turned in within two weeks after the due date will be graded for half credit (50%). Any homework not turned in two weeks after the due date may be turned in for evaluation, but will receive a grade of zero. No work will be accepted after the graded homeworks are returned.

Studio exercises – Studio exercises typically are graphical vignettes that require knowledge of landscape design and technical competence to create reasonable, practical, cost-effective and safe solutions. Therefore, incomplete works that do not provide decided solutions will not be accepted. Incomplete works will receive a grade of zero.

In-class assignments – Portions of the scheduled class meeting time will be used for in-class assignments. These assignments will be designed to illustrate concepts and problem solving techniques. In-class assignments may be worked individually or in groups and will be due at the end of the class when assigned. In-class assignment may not be made up.

Oral presentation and term paper – Each student is required to make a 15-minute PowerPoint presentation on one of the subjects covered in the course material or a related topic. A list of subject areas will be distributed at the beginning of the term. In advance of the presentation, the

student will supply the instructor with a final outline of their presentation. At the latest, this must be supplied by the morning of the day before the presentation. Even earlier is preferable since that will give you more time to make suggested adjustments to the presentation.

The student is also required to write a summary on that topic. The paper shall be submitted on the due date assigned by the instructor.

Quizzes – Quiz is a means that ensures the student to read assigned materials. Depend upon the class participation throughout the semester, quizzes may be given occasionally. If the class participation exceeds instructor's expectation, no quiz will be given. All quizzes will be closed-book, closed-notes and should require approximately 20-30 minutes of class time.

Exams – Two exams and one final will be given. Exams will focus on application of technical concepts. Exams will be limited to one class period. **The final exam is on Dec. 7 (Friday) from 12:30~2:30pm.**

Extenuating circumstances – If, at any time, extenuating circumstances interfere with your ability to meet class requirements, students are encouraged to contact Dr. Li prior to passage of a due date, giving of a quiz or exam, etc. The ability to make up missed work and the terms of any allowed make-up will be determined on a case-by-case basis.

Submission Requirements

Submission requirements include the basis for determining whether or not a project is complete enough to evaluate. Construction documents are legal documents that govern construction and generally become part of a legal agreement between a client and a building contractor. They are intended to convey precise information and are free of graphic embellishment. In this course all drawings turned in for evaluation must meet professional technical standards for working drawings. That is, **they must be drafted, and lettered, or plotted from an appropriate CAD package**, with all appropriate dimensions, elevations, contours, notes and labels typical of construction documents. Every sheet must have **an appropriate title block, north arrow (if appropriate), scale designation (graphic and written), date, name and project/course title.** **Any exercise or project that fails to meet standards of completeness or neatness will receive a penalty of zero point. No work will be accepted for credit after the last class day.**

Scholastic Honesty

“Aggies do not lie, cheat, or steal or tolerate those who do.” Students are expected to uphold the highest level of honesty and integrity in all their interactions, and particularly so in the pursuit of knowledge. For the Aggie Code of Honor and explanations of academic integrity and its responsibilities, see <http://www.tamu.edu/aggiehonor>.

Students are cautioned about copying work that was not their own effort and any other act that constitutes plagiarism. Plagiarism is any act that reproduces another individual's ideas, words, writings, drawings, photographs, digital media etc., and represents it as being original work. You are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Rules governing plagiarism can be found in the latest edition of the Texas A&M University Student Rules governing Scholastic Dishonesty.

Because learning is not transferable, it is assumed that students understand the necessity to do their own work. It is possible with computer technology, and because everyone in the class is working on the same exercises, to copy the work of others or participate in the joint preparation of assignments. The assigned design work in this course is not intended as a team effort. If more than one student is found to submit the same (or substantially similar) copied work, the grade for that project will be equally divided among those students. That is, if three students submit copied work that receives a grade of 90, the grade assigned to each student will be recorded as 30.

Any students found to submit copied work on more than one occasion will receive no grade for that work and a letter outlining the incident will be placed in the student's permanent file. Students are cautioned to guard their individual work and refrain from sharing, even as an example for others, because all students submitting shared work will be considered equally responsible for scholastic dishonesty and penalized equally.

ADA Policy

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for people with disabilities. Among other things, this legislation requires that all students be guaranteed a learning environment that provides reasonable accommodation for any disability they may have. If you believe you have a disability requiring an accommodation, please talk with the instructors if you feel comfortable with that or contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building, telephone 845-1637.

LAND 612 Work Plan									
Week	Date	Topic	Activity	Homework		Exercise		Readings	Remarks
				Issue	Due	Issue	Due		
1	28-Aug	Introduction to the course and review of syllabus; contours and form	Lec01, Lec02			Ex01		Ch1	
	30-Aug	Contours and form	Model making					Ch1	
2	4-Sep	Interpolation and slope	Lec03, Demo			Ex02	Ex01	Ch2	
	6-Sep	Slope formula application (spot elevation)	Lec04	H01				Ch3	
3	11-Sep	Site grading process	Lec05, Demo	H02		Ex03, Ex04	Ex02	Ch4 and Ch5	
	13-Sep	Grading a parking lot	Demo		H01	Ex05			
4	18-Sep	Grading around buildings (residence)			H02		Ex03, Ex04		
	20-Sep	Grading around buildings	In-class1, Demo			Ex06	Ex05		
5	25-Sep	Soils in construction; earthwork, cut and fill	Lec06, Lec07	H03, H04		Ex07		Ch6 and Ch7	
	27-Sep	Earthwork, cut and fill				Ex08, Ex09	Ex06	Ch7	
6	2-Oct	Grading with balanced cut and fill			H03	Ex10	Ex07		
	4-Oct	Q&A on exam			H04	Ex11	Ex08, Ex09		
7	9-Oct	First exam							
	11-Oct	Intro to stormwater management or Review first exam				Ex12	Ex10, Ex11	Ch9	
8	16-Oct	Intro to stormwater management or Review first exam	Lec08					Ch9	
	18-Oct	Stormwater management (H&H)	Lec09, Lec 10	H05			Ex12		
9	23-Oct	Rainfall runoff estimate (rational method)	Lec11	H06, H07				Ch11	
	25-Oct	Rainfall runoff estimate (modified rational method)	Lec12	H08	H05			Ch11	
10	30-Oct	Stormwater management field trip	In town field trip		H06				Nov 2: Q-drop deadline
	1-Nov	Rainfall runoff estimate (curve number & TR-55)	Lec13		H07				
11	6-Nov	Stormwater management systems; Q&A on exam			H08	Final project			
	8-Nov	Second exam							
12	13-Nov	Soil erosion process	Lec14					Ch10	
	15-Nov	Erosion and sediment control BMPs	Lec15				Final pro.1	Ch10	
13	20-Nov	Transportation and horizontal alignment	Lec16, Lec17				Final pro.2 grading	Ch15 and Ch16	Nov 22-23: Thanksgiving
	22-Nov	Thanksgiving							
14	27-Nov	Wrap-up (Q&A on final project) & vertical alignment	Lec18				Final project		
	29-Nov	Semester project presentation	PPT due						
15	4-Dec	Semester project presentation	Paper due						Dec 4 Last Class Day
	7-Dec	Final exam 12:30~2:30pm							