University of Colorado at Boulder
Program in Environmental Design

ENVD 2130. LANDSCAPE DESIGN STUDIO

Spring 2013

INSTRUCTORS

Morning Sections		*M&W 8:00-8:50am – VAC 1B20* *. 9:00-11:50am – ENVD 301*
11	Stacey Schulte	stacey.schulte@colorado.edu
12	Ken Renaud	ken.renaud@gmail.com
13	Jay Garcia	jgarcia@g3planningllc.com
14	Tori Derr	victoria.derr@colorado.edu

Afternoon Sections		*M&W 1:00-1:50pm – Educ 220* *2:00-4:50pm – ENVD 301*
21	Stacey Schulte	stacey.schulte@colorado.edu
22	Stuart Hutchinson	stu@sh-architects.net
23	Justin Bellucci	justin.bellucci@colorado.edu
24	Tori Derr	victoria.derr@colorado.edu
25	Ken Renaud	ken.renaud@gmail.com

Teaching Assistants
Travis Flohr - travis.flohr@ucdenver.edu
Micheal Szuberlia - michael.szuberla@colorado.edu

COURSE OVERVIEW

ENVD 2130 introduces students to the process of landscape design. In this course students will develop tools of landscape design, which encompasses the planning, design, management, and stewardship of the natural and built environments. This studio will focus on incorporating green infrastructure and agriculture into the urban fabric. Through a series of exercises and design solutions, students will work with concepts of local and regional food systems, habitats in urban and natural settings, and the overall process of landscape architecture. This course will build on the first ENVD semesters, utilizing skills in drawing, graphics, computer skills and simple analytics. In particular students will develop analytical skills including research, systematic analysis and computer-aided analytics. Geographic Information System (GIS) will be one tool of analysis along with observation, documentation, and data analysis. Students will communicate research and observations with hand drawing, photography, map generation and other graphics.

RELATIONSHIP TO CONCURRENT COURSES
ENVD 2130 studio exercises relate directly to two lecture courses that students will be taking concurrently: ENVD 3003 Site Planning and ENVD 3004, History of Landscape Architecture.

COURSE FORMAT
The course begins with the reading of 2 separate sites which will prepare students for the final focus area at Arapahoe and 55th Street. This area will become a focal area of the City of Boulder Community Planning and Sustainability Department in the coming years. Using this real-world case, we will explore the processes and the systems that inform landscape design.

Phase One: Reading and Recording
Students will identify, measure, and document a set of landscape conditions at two sites. Once documentation is complete, students will analyze how slope, aspect, exposure, relative wetness, soil composition, and urban infrastructure generate the observable conditions of their sites.

Outcomes:
- Students will develop and hone their measurement and documentation skills
- Students will develop and articulate ecological components and functions at the sites
- Students will understand the spatial characteristics of landscape form through section
- Students will understand how sectional configurations (either formal or material) allow or preclude particular ecological processes and conditions
- Students will use ArcGIS, Illustrator & Photoshop, as well has hand drawing and drafting to visualize their documentations

Phase Two: Design Process
The second phase will begin with a systematic evaluation of the site at Arapahoe and 55th and will result in a landscape design. Analysis will be through the lens of specific issues including natural systems, green infrastructure, urban agriculture, and wildlife enhancement and will include documentation techniques and use of metrics in evaluation. Students will utilize the ecological knowledge developed in phase 1 and to organize, execute, and evaluate a program either developed by them or provided by the instructor.

Outcomes:
- Students will be able to critically evaluate systems and components
- Students will become familiar with a variety of scales and methods of reconnaissance, observation, analysis and research including mapping, the use of GIS, data collection, obtaining and reviewing planning documents and diagramming
- Students will expand and adapt their knowledge from phase 1 to execute a larger, more complex program
- Students will continue to expand their ecological knowledge, particularly as it relates to systems, organization, and performance
- Students will develop a comfort with and ability to work within a range of scale from site to detail
- Students will begin to reference and utilize knowledge gained of landscape architecture precedents from within the studio and their concurrent courses

LEARNING OBJECTIVES

1. Ecological Understanding

   Students should understand the diversity of environments and natural systems operating within and across a site, including: i) how topography, angle, aspect, elevation, soil composition, and moisture combine to generate ecological conditions at a niche scale; ii) understand how these attributes are situated within scalar ecological systems; iii) understand how particular niche ecologies prevent or allow associated plant or animal behavior (e.g., perches and predatory behavior or narrow shorelines and kill zones); iv) understand how these niche ecologies transform over multiple time scales.

2. Landscape as material

Students should begin to understand and manipulate the physical medium of landscape to generate spatial understanding and programmatic relationships and effects, including: i) understand how the manipulation of topography, soil composition, and moisture content affects plant and animal communities; ii) understand basic hydrology; iii) be conversant in basic plant communities, both for spatial qualities and habitat and management implications; iv) understand temporal (daily, seasonal, multi-year) considerations and constraints.

3. Research and Analysis

Students should be able to utilize research methods that inform landscape planning and design, and a capacity to conduct analyses at multiple scales, from the niche to regional. GIS will be an integral component of the course, and students will become adept at using GIS as an analysis tool and incorporating it in design and planning.

4. Elements and Systems

Provide students with an ability to recognize urban development patterns through history, and assess natural features (climate, topography, hydrology, vegetation, and ecosystems), human systems (infrastructure, transportation, pedestrian capture areas, open space), and urban elements (building types, lots, blocks, civic space, and rights of ways), and integrate them into planning and design proposals.

5. Design Process

Students should be able to leverage the unique elements and operations at work on a site, including integrating site research/systems into a cohesive design response. Students should be both comfortable and proficient within a process of iteration, evaluation, and response and should be able to i) develop a fast and efficient work ethic, allowing for multiple cycles of evaluation; ii) be able to generate multiple design options simultaneously; iii) be able to critically evaluate work and respond productively.

COURSE STRUCTURE

Unless otherwise instructed, each Monday we will meet for 50 minutes in your assigned lecture hall at the beginning of each class period. This time will be used for lectures and instruction on topics related to the particular issue to support studio work. These lectures are critical to your ability to complete assignments. The remaining time will be spent with your section instructor. Wednesdays there will be no lecture and you will go straight to your studio at 8am and 1pm.

ASSESSMENT & ATTENDANCE

Your grade will include assessment in writing, research, analytical & research skills, graphic and written communication, attendance and collaboration. See the attached *Studio Policies* for information on attendance.

Participation:	10%
Phase One:	30%
Phase Two:	20%
Phase Three:	40%
TOTAL	100%

Letters for final grade

A 95-100%	C 74-76%
A- 90-94%	C- 70-73%
B+ 87-89%	D+ 67-69%
B 84-86%	D 64-66%
B- 80-83%	D- 60-63%
C+ 77-79%	F 59% or lower

REQUIRED SUPPLIES

Computer-related

1. Thumbdrive (with at least 4GB so you can easily transfer & backup data. With your name on it!)
2. Mouse (navigating with a mouse is much easier than trackpad)
3. Laptop powerful enough to run the following software which you must have installed:
   - ArcGIS (This will require windows conversion if you have a Mac)
   - Adobe CS5 Creative Suite (includes Adobe Acrobat Professional, Adobe Illustrator, and Photoshop)
   - Microsoft Office (including Excel)
   - SketchUp (free download)
   - Google Earth (free download)

Drawing supplies

1. Graph Paper
2. String
3. Tape Measure
4. Clip Board
5. Stakes
6. Sketchbook - at least 8"X10"
7. Engineers' Scale
8. Drafting board and mayline.
9. Drafting triangles including one at least 12" long.
10. Rolls of trace paper small 12" or 14" and large18" or 24"
11. Sketch pencils and mechanical pencils (.5mm, .7mm, .9mm)
12. Small sets of Prismacolor pencils & markers

Optional Text

In addition to the Landscape Architecture text by Simonds and Starke required for ENVD 3003, students may wish to purchase of the following:

Cantrell and Michaels, 2010. *Digital Drawing for Landscape Architecture: Contemporary Techniques and Tools for Digital Representation in Site Design*. John Wiley & Sons.

LOCKERS

You will be assigned a locker area by your studio instructor.

DESIRE2LEARN

learn.colorado.edu

Desire2Learn (D2L) is the on-line learning environment that we will be used in this course for announcements, submitting assignments and posting materials. You will submit all assignments in PDF format to the "All Sections" site for 2130. In addition, your instructor may have a D2L site specifically for your section.

TIME AND MONEY

Time Allocation:	Approximately 16 hours per week outside class
Budget for Supplies:	Approximately $150 (assuming you have most supplies from last year)
Budget for Software and Technology:	Approximately $0 (more if you need Windows or Office)

MAJOR DATES

Mon	1/14	Intro Project 1 begins
Mon	1/21	MLK - NO CLASS
Wed	2/13	**Project 1 review**
Mon	2/13	Project 2 Begins
Mon Wed	3/25 3/27	SPRING BREAK - NO CLASS
Wed	5/1	**Project 2/Final Review**

POLICIES, RULES, and REGULATIONS

Returning Papers, Quizzes, and Examinations
1. Papers and assignments will be distributed either in a class session or as specified by your instructor.
2. We will announce when papers, quizzes, and examinations will be available to be picked up, if they are not to be returned during class.
3. To ensure your privacy examinations are returned only in class or by appointment with the instructor.

Academic Honesty, Plagiarism & Honor Code
All students at the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy at this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@coloado.edu, 303 725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at www.Colorado.EDU/policies/honor.html and at www.Colorado.EDU/academics/honorcode/

Papers submitted by any student, written in part or in whole by someone other than that student, shall be considered to constitute fraud under the University Honor Code, and result in the assignment of an 'F' for the entire course." Students should note that their work may, at the discretion of the instructor, be evaluated through TurnItIn.com, a plagiarism service provided to all faculty members at CU-Boulder; and that this service retains a copy of the submitted work for future comparisons." (Honor Code Office.)

Disabilities
If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Medical Conditions: Injuries, Surgeries, and Illnesses guidelines under Quick Links at Disability Services website and discuss your needs with your professor.

Accommodation for religious observances
Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. In this class, we will work with individuals on a case-by-case basis. Please contact the instructor in a timely manner so that accommodations can be arranged. Policy details at www.Colorado.EDU/policies/fac_relig.html

Learning environment
Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at http://www.colorado.edu/policies/classbehavior.html and
http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

Discrimination and Harassment
The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at http://www.colorado.edu/odh