Design & Communication 2

Architecture & Site Design

SYLLABUS

Overview

This course will build on concepts explored and information collected in the Fall 2013 semester in order to introduce students to the fundamentals of design through a process of observation, analysis and synthesis. Students will develop an understanding of compositional strategies, ordering systems, and material assemblies and their impact on the experiences of architecture and landscape within a local site. Students will be introduced to a range of techniques of representation necessary for the investigation, development, and communication of their ideas.

Prerequisites

ENVD 1052 Design & Communication 1
ENVD 1004 Introduction to Environmental Design Theory 1
ENVD 2001 Human Behavior in Design & Planning

Co-requisites

ENVD 1104 Introduction to Environmental Design Theory 2
ENVD 2003 Ecology & Design

Instructors + Meeting Times

All sections will meet in ENVD Room 201 unless otherwise directed on Mon, Tues, Thurs from 9-noon.

Sections 110-111	Justin Bellucci	justin.bellucci@colorado.edu
Sections 120-121	Victoria Derr	victoria.derr@colorado.edu

Format *Studio, class meets thrice/week*

Students are expected to work on all of their assignments in the ENVD studio space. The success of this course requires a collaborative and interactive environment; student participation is essential.

Course Materials

1. Textbooks

The following textbooks are **required**. They are available for purchase at the CU Bookstore:

- Ching, Francis and J. Eckler, Introduction to Architecture. Hoboken, NJ: Wiley, 2013
- Unwin, Simon. Analyzing Architecture. Routledge Press. 2014

The following is **optional**:

- Denison, E. and I. Stewart. How to Read Bridges: A crash course in engineering and architecture. New York: Rizzoli. 2012.

Other readings will be made available via D2L

2. Studio Materials

Students should come to every class prepared. This means bringing the materials for field days, when scheduled, or for drafting, model-making or drawing when in studio. Drafting equipment, cutting boards, xacto knives and spare blades, pencils, scales, tape, glue, vellum, trace, chipboard, etc. will be required. Refer to the studio supply list (also on D2L site) for a complete list. During the semester you will need to purchase additional materials to complete your work. This may become expensive and should be planned in your budget. Lockers are available on a first-come, first-serve basis. To claim a locker, you must place your own combination lock on it.

3. Access to D2L
A section website has been set up on the Desire 2 Learn (D2L) server. Additional course material, readings, resources and assignments will be posted here.

4. Sketchbook and Notebook
Each student will be required to maintain a sketchbook for this studio. At a minimum, the student is expected to record notes and sketches from site visits, lectures, desk crits and pin up reviews. Label all entries in your sketchbook. Drawings from the sketchbook may be scanned for use during a pinup.
The notebook should be a daily organizer that contains seminar notes, handouts, readings, research, etc. These materials will not be collected, but should be available on a daily basis.

5. Digital Storage device
It is recommended that you save digital files in two different storage locations. Your digital storage device will serve as one storage device. The second format may include: Dropbox, CD/DVD, a second digital storage device, or by emailing it to yourself. The lab computer hard drive is **not** a reliable storage device. Excuses for lost work will not be accepted. Be mindful to scan and photograph all work that is part of your process in order to produce the required portfolio pages at the end of the semester. Label each image file with your name and stage of the project.

6. Computer Lab Access
Design software is available in the ENVD computer labs. All students should acquire after-hours access to the building and computer lab via their student ID. If you do not currently have building access, please visit the front office of the ENVD building to request access.

7. Access to Colorado.edu email
Check your Colorado.edu email account on a regular basis for any correspondence from Instructor. Your instructors will only contact you through this email account, so it is important that you check it daily.
* If you experience any problems with university information technology at any time this semester, please contact: OIT Service Center, 303-735-HELP (5-4357 from an on-campus phone), or help@colorado.edu.
It is the responsibility of the student to make sure he/she is registered, has access, regularly checks email, and can upload/download from the course D2L site.

Course Schedule
This semester's work will focus on the same stretch of Boulder Creek analyzed last semester. Students should refer to and build upon their research from ENVD 1052. There are three phases of design development leading up to our final project. The final project will be a synthesis of all three phases. Each phase will consist of shorter assignments which will be collected on a weekly basis. There will be something due every class. Refer to individual assignment sheets for specific due dates.

Assignment 1: Precedent
Assignment 2: Orthographic Drawing
Assignment 3: Site Analysis
Final Assignment: Final Design

Objectives

By the end of this course, students should be able to:

- Recognize and utilize fundamental design principles and the basic elements of architecture
- Apply this understanding to simple design opportunities through a process of design
- Utilize drawings and models as part of the design process, and to communicate ideas to others

Design Issues:
Perception: figure/ground, scale
Space and form: additive/subtractive design, solid/void
Elements of architecture: point, line, plane, volume
Design principles: axis, hierarchy, rhythm, proportion, scale, datum, transformation
Systems of organization: grid, linear, radial, modular, primary/secondary/tertiary structures
Programming and experiential considerations: universal design and accessibility, circulation, sequence of spaces, light/shadow, public/private
Basics of construction: structures, materiality, tectonics
Site response & design: spatial, environmental, ecological, phenomenological
Ethic of Sustainability: energy efficiency, resources challenges, ecological footprint

Design Skills:
drawing methods: sketching, diagramming, drafting and rendering
drawing types: multiview and orthographic projection, paraline drawing, perspective
model making: physical modelling and craftsmanship
digital tools: digital layout (Adobe suite)
visual presentation: formatting drawings and models
verbal communication: developing architectural vocabulary and presentation skills

Modes of Learning:
Assignments and projects will require integrative work across both research & analysis, and synthesis modes of learning.

Research and Analysis:

- analysis of precedent, ability to locate relevant exemplary works
- development of visual thinking and organization (e.g. diagramming)
- introduction to research: gathering information, observation and documentation
- reading to support design projects
- site analysis

Synthesis:

- generate a variety of ideas/*partis*
- clarify intentions and focus
- respond to multiple issues in design development
- refine the whole and the part

Assessment

Students will be evaluated on their ability to meet the learning outcomes described in the individual project assignments across modes of learning (above) in both *design thinking* and *design making* domains. Each project phase will be broken into smaller assignments which, when added, equal the percentage value indicated below. Rubrics will be provided to expand the student's understanding of specific assignment objectives. Additionally, students will be assessed on their daily class participation. A course grade will be calculated as follows, 100 % possible:

Assignment 1: Precedent	20%
Assignment 2: Orthographic Drawing	20%
Assignment 3: Site Analysis	20%
Final Assignment: Final Design	40%

Attendance & Participation Policy

Studio Environment & Attendance: Students are to arrive in studio promptly, with supplies and prepared to work for the duration of each studio meeting. Tardiness will affect your final grade. You must work in the studio for its entire scheduled period. If you need drawing materials, or you need some resources from the library, get them before the studio period. Attendance will be taken at the beginning of each studio event, including lectures. If you arrive more than 10 minutes late you will be counted as absent. More than three unexcused absences in a given semester are grounds for final grade reduction by your instructor. To be excused from any event, you must send a note to your studio instructor with your name, the date, and the reason for the absence and a copy of any supporting evidence (doctor's note, etc.). Only exceptional circumstances like illness or serious family problems will be considered. Except for documented health or disability reasons, excuses for absences, tardiness, missed project and assignment deadlines will be not accepted. **Working in studio outside of regular class time is critical to your success.

ENVD STUDIO EXPECTATIONS & POLICIES

Hand-Ins and Penalties: Students in this Program have requested, and we have implemented, a policy for handing in work at the end of each project. To give every student exactly the same amount of time for working on a design, there will be a specified date and time by which you must hand in your project. This time is firm and absolute; even five minutes after the hand-in time will count as late. Your instructor will collect your projects at the appointed time. If your project is not collected, your project may receive a substantial "markdown" (10% to 50%) or a failing grade (0%). Only extenuating circumstances like a serious family problem or illness will exempt you from this hand-in requirement. You will have to supply supporting evidence (doctor's note, etc.). If you wish to hand in projects before the deadline, you must make arrangements with the instructor.

Working Models and Drawings: The drawings, diagrams and models that will be used to design, test and represent the project throughout the semester should be continually updated and *available at all class meetings*. It is important that drawings and models be developed as "working" materials for quick development matching the fast pace of the studio. Models which display rough cuts and pencil marks, and drawings which are worked over with notes, trace and sketches show the time and thought necessary in any true project development. This process is evidence that these materials are being used as a tool in the design as a way to improve it. Students are required to find an appropriate balance between the fast pace and necessity of working models & documents, with the time-consuming craft needed for the full representation of the project.

Production: New work shall be presented for each meeting. Failure to demonstrate significant, daily progress or development will count as an absence. Participation in reviews is a privilege and students may be held out of juries based upon the instructor's evaluation of their work to date. For in-class pinups, students are to present all current drawings, diagrams, sketches, research and models. The informality of a desk crit is not an excuse for lack of progress or advancement of the project. A significant advance in the design and the presentation of such is expected for every class meeting.

Software: For in-class drawing presentations, make arrangements assuring printing or plotting. Instructors may not review work not plotted or printed. No excuses will be accepted for technical difficulties, lost or corrupted files, freezes or crashes. Hard copies of all work, including "red-lines" and trace studies are expected and encouraged as part of a working drawing technique.

Grading: Although studio projects will differ somewhat, you will find that most projects are assessed according to the following criteria (the particulars of each project will be explained to you when it is first handed out): The degree to which you explored the design problem. A good design is never developed on the first try. Good designers explore numerous alternatives, and work out their ideas in increasing detail.

- *The degree to which you developed your design idea.* Good design works out every-thing down to the smallest details (some great architects have been known to line up the grout lines of bathroom tiles with the edges of doors!). It is not just a matter of putting in a lot of detail; rather, it is a matter of making all of the details reinforce the bigger design concept. All other things being equal, a student who works out his or her design in greater detail and in sympathy with the larger design concept will get a better grade.
- *The degree to which you answer the functional requirements of the design problem.* We want to see design ideas that work. Beautiful forms alone will not receive as high a grade as beautiful forms which work well.
- *The power and beauty of your design.* We want you to design more than mere functional buildings. We want you to design buildings which not only function, but also lift the spirit, make the world a more beautiful place, make people see things in a different light, explore intellectual idea, reinforce or even challenge our deepest cultural values.
- *The quality and persuasiveness of your presentation.* One of the essential skills you are learning in the studio is how to present your ideas. A project which grabs the attention of its audience and persuasively sells its ideas will do better than one which merely sets out the basic facts of the design.
- *The degree to which you actively participated in tutorials, seminars and reviews*. The more you give to these teaching events, the more you learn.

Doing well in one of these alone does not guarantee a good grade. Even though you might have worked very hard, hard work alone does not earn a high grade. A functional design alone does not earn a good grade nor does a flashy presentation. The best grades will go to projects which balance all of these factors as well as excel in each. Please note that the average grade—the grade the University gives for competent work—is a C. Any grade over this is awarded for increasing degrees of excellence; any grade below this is awarded for below average work.

Studio Space: The desks in the second floor studio are considered “hot desks,” meaning that they are shared by other students in the program. You will be assigned desks for your designated class period only. When you come in to the studio to work outside of class time, you may work at any available desk provided it is not reserved for a class. Please observe the following rules in the studios, which have been established for the safety, convenience, and maintenance of all who use the space.
You are required to know and follow policies and procedures including but not limited to the following:

- Respect the arrangement of your desks with your fellow students so that everyone can establish a comfortable working space. Do not block the aisles, which are legally guarded fire escape routes. If you cannot reach a stairway without tripping over desks, you are in violation of the fire codes.
- Overhead fluorescent lighting fixtures are not to be tampered with.
- Do not use stereos, iPods, MP3s, etc. without headphones. Not everyone may appreciate your music, and no one appreciates hearing them at the same time from opposite ends of the room. Your fellow students have insisted on this rule, so please observe it.
- Do not use cell phones while in studio or class.
- Do not draw or paint on the walls. The University is tired of paying for repainting our studios every summer, and are threatening to withdraw maintenance of the studio spaces altogether.
- Absolutely NO Power Tools are to be used in the building (including ‘Dremels’)

- No sprays of ANY kind are allowed (paints, spray adhesives, Etc.) in the studios, stairwells, crit spaces, outside, i.e., no spraying but in the Spray Booth.
- Do not cut drawing or model materials on unprotected drawing desks. Have you noticed the unpleasant texture in drawings that are created on ripped-up desk surfaces?
- Do not bring dogs into the building. This is strictly forbidden by the University because they ruin furniture and carpets and some people are allergic to dogs.
- Do not bring bicycles into the building. This is also strictly forbidden by the University. They will be confiscated by CU Police.
- Do not bring alcoholic beverages or drugs into the building. The University maintains an alcohol/drug-free policy for its students and in its buildings. *You could be expelled for this violation.*

Other Critical Information

Accommodations
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 Injuries under Quick Links at Disability Services website (http://disabilityservices.colorado.edu/) and discuss your needs with your professor.

Religious Observance
Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, we ask that you contact your instructor *within the first week* of class to make arrangements. See full details at http://www.colorado.edu/policies/fac_relig.html

Classroom Behavior
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. We will gladly honor your request to address you by an alternate name or gender pronoun. Please advise us of this preference early in the semester so that we may make appropriate changes to our records. See policies at http://www.colorado.edu/policies/classbehavior.html and at 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

University Honor Code
All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of 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@colorado.edu; 303-735-2273). 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). Other information on the Honor Code can be found at http://www.colorado.edu/policies/honor.html and at http://www.colorado.edu/academics/honorcode/