

## Studio One: Design Thinking

EVDA 580 ARST 484 H(0-8)

Teaching Team: Angela Rout, Phil Vandermeij, Jan Kroman, Jason Johnson, Marc Boutin (Course Manager)

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Tuesdays and Fridays, 14:00 – 17:50 hrs., Room PF2160 and Studio 1 Space

### Introduction

Studio One Design Thinking will be taught within an interdisciplinary milieu. Design will be understood both as a process of consciously evolving one context into another as a net contribution to our broader ecology and as representing multiple means by which complex problems are identified, engaged, and resolved into comprehensive solutions, requiring a diversity of processes, means of expression, and systems of representation. Module One offers a series of interconnected projects that explore architectural knowledge and provide an introduction to architectural elements. Projects in Module Two explore a number of themes that help structure a deeper understanding of the implications of intervening in a given context through architecture, including addressing programmatic needs, the means to enclose space, and creating intention in architecture. Throughout the term, the definition of architecture will be discussed and explored, including key aspects of making architecture such as abstraction, order, and representation.

### Objectives

1. To acquire a basic knowledge of design processes, including formal analysis, translation and interpretive approaches.
2. To acquire a basic knowledge of orthographic drawing, architectural conventions and site interpretation.
3. To understand design as a critical discipline and the basic elements of architecture.
4. To develop individual and collaborative (interdisciplinary) skills in design process and representation.
5. To learn about the inter-relationships between ecology and design.

### Teaching Approach

The course is studio based and as such, students will complete a series of projects which will be reviewed within the studio and serve as a basis for class discussion. As required by the specific projects, students may be working individually or in a group setting. Overall, students will be organized into 'crit' groups, typically working with one member of the teaching team. Topics will be introduced by the teaching team, while work in progress will be discussed through desk crits.

### Content: Outline Project Descriptions

#### Module One 4 weeks (30% of Final Grade)

1. **Project 1.** (two weeks) **Transformations 1: Explorations in Architectural Intentionality.** Students will be given one of 5 different Architectural Elements: Roof, Wall, Door, Window, and Floor. Through a rigorous drawing process, the students will explore transformations of the element based on spatial intentions including *containment, release, threshold, and extension.*
2. **Project 2.** (2 weeks). **Contexts: Developing a Comprehensive Understanding of the Landscape.** Student groups discuss the fundamental aspects of the given landscape and come to an understanding of an overall vision of the site. Drawing and drafting is then used in translating the diverse knowledge developed from a site analysis into a comprehensive two-dimensional representation of site. Graphic strategies are utilized to explore the landscape as a complex, layered entity. This comprehensive site documentation is the basis for future project work.

#### Module Two. 8 weeks (60% of Final Grade)

3. **Project 3.** (2 weeks). **Transformations 2: Creating a Place (for Reading).** Each student chooses two of the Architectural Elements studied and explores the design of these elements as part of a design for a Place for Reading. In addition to the two Architectural Elements that form part of the Place for Reading, the student will also incorporate 3 natural elements found in the landscape site as part of the design.

4. **Project 4.** (2 weeks). **Transformations 3: Material and Tectonic Exploration.** Each student group chooses one of the Architectural Elements explored from Project 1 as a starting point and designs/transforms/fabricates the element at full scale. In this exercise, the process of making informs the design as an iterative process, while drawing, sketching and small models are also employed to develop design ideas and to communicate the full design of the Architectural Element. Project deliverables include a full-scale fragment of the designed element, study models and sketches that show the evolutionary process of design.

5. **Project 5.** (4 weeks). **Transformations 4: Human-scaled Intervention.** Each student will explore the lessons learnt from the previous projects in a comprehensive final design. The program for the final project will be an Environmental Interpretive Centre.

### Course Expectations and Evaluation

Students are expected to complete studio projects by the assigned date, pinned up and ready to start at the beginning of the scheduled class time. Students will be expected to present their work to the group and to participate in class discussion. Evaluation of the studio projects forms 90% of the course grade, as outlined in the Content: Outline Course Descriptions, while a digital portfolio of the term work, handed in at the completion of the term, forms the final 10% of the student's mark.

### Grading System

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range.

Letter Grade	4-Point Scale	4-Point Range	Percent	Description
A+	4.00	4.00	92.5-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	85-92.49	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	80-84.99	Very good performance
B+	3.30	3.15-3.49	76-79.99	Good performance
B	3.00	2.85-3.14	73-75.99	Satisfactory performance
B-	2.70	2.50-2.84	70-72.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	66-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	63-65.99	
C-	1.70	1.50-1.84	60-62.99	
D+	1.30	1.15-1.49	56-59.99	
D	1.00	0.50-1.14	50-55.99	
F	0.00	0-0.49	0-49.99	

Note: A student who receives a "C" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

### Selected General References

Banham, R., *Los Angeles: The Architecture of Four Ecologies*.  
Formann, R. T. T. and M. Godron, *Landscape Ecology*.  
Johnson, B. R. and Hill, K. , eds., *Ecology and Design: Frameworks for Learning*.  
Orr, D. W., *The Nature of Design: Ecology, Culture and Human Intention*.  
Yeang, K., *Ecodesign: A Manual for Ecological Design*.  
Zeihner, L. C., *Ecology of Architecture*.

### Mandatory Budgetary Requirements

The University has approved supplemental fees for the following courses:

ARST 484/EVDA 580 - Studio I Design Thinking	\$92.00
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### CACB Student Performance Criteria

The following CACB Student Performance Criteria will be covered in this course: A3 Graphic Skills, A4 Verbal and Writing Skills, A5 Collaborative Skills, B1 Design Skills, and B3 Site Design.

### Notes:

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor. Submissions must come from an official University of Calgary (ucalgary) email account.
2. It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. (<http://www.ucalgary.ca/drc/node/46>) Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
3. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.
4. Information regarding the Freedom of Information and Protection of Privacy Act (<http://www.ucalgary.ca/secretariat/privacy>) and how this impacts the receipt and delivery of course material
5. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
6. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
7. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>); Graduate Student representative( <http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>).