

Environmental DESIGN

architecture + landscape architecture + planning

Faculty of Environmental Design EVDS 683 Integrative Design

University of Calgary / Faculty of Environmental Design

Advanced Special Topics In Environmental Design (Integrative Design)

EVDS 683.54 H (1.5-1.5)

Tue & Thu, 9:10-10:40am, Room 2110

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PF 2110, hours by appointment

Introduction

The course will cover the design and fabrication of a prototype, which will be set in an architectural context. More specifically, the course will focus on taking aspects of an architectural project and developing a component or piece for it, either through complement or contrast. The underlying concept will be derived from the student's architecture studio project, with the hope of challenging students to further develop an idea from the theoretical realm into a physical object. Notions of translation will come into play at different levels of realization. First, the underlying concept will be repurposed; then, the student will confront the challenges of different modes of making and other pragmatic constraints. The quality of this translation is the primary focus of this course, with an emphasis on how well this translation conveys the initial concept and design intent.

Objectives

1. To advance an understanding of conceptual development across different scales
2. To develop skills in refining concepts to constructible ends
3. To advance skills in communicating ideas through drawings and built objects
4. To acquire working knowledge of different modes of rapid prototyping
5. To develop an understanding of the effects of materiality on product design
6. To gain skills in unraveling a form into actionable parts to be assembled
7. To develop skills in making, working with a variety of materials and fabrication tools

Teaching Approach

The course will be divided into four phases. The first two phases will focus on conceptual development and rapid prototyping. The final two phases will hone the conceptual and

material considerations into a singular design. This design will be then be refined, documented, and built.

The course will be delivered through two classes a week. In the first part of the semester, the first class of each week will be a lecture, followed by a brief discussion. These classes will become individual desk crits later in the semester as the projects move from the initial stages of design into fully- conceived prototypes. The second class each week shall take the form of a roundtable crit, whereby individual student works are presented and discussed as a group, allowing the group to benefit from the challenges being encountered by their peers.

Content: Topic Areas & Detailed Class Schedule

Week 1

Introduction

Class 1 (January 10)

General introduction and course outline

Week 2

Class 1 (January 15)

Lecture: Context-based product design

Class 2 (January 17)

Round-table discussion:

Initial concept discussions

Week 3

Class 1 (January 22)

Guest Lecture: Sculptor, Caitlind Brown Objectifying Concepts

Class 2 (January 24)

Round-table discussion:

Initial ideas & key concepts

Week 4

Class 1 (January 29)

Guest Lecture: Architectural Intern, Neal Philipsen The Function of Forms

Class 2 (January 31)

Round-table discussion:

Pin-up, refined research and schematics

Week 5

Class 1 (February 5)

Guest Lecture: Carvel Creative Rationalizing Sculptures

Class 2 (Feb7)

Round-table discussion:

Material Research & Rapid Prototyping

Week 6

Class 1 (February 12)

Informal desk crits

Class 2 (Feb 14)
Mid Term Crit:
Concepts, Research, and Schematic Prototypes

Week 7
Mid-Term Break February 17-24

Week 8
Class 1 (February 26)
Lecture: Making
Class 2 (February 28)
Round-table discussion: Design Finalization

Week 9
Class 1 (March 5)
Informal Desk Crits
Class 2 (March 7)
Round-table discussion: Prototype design

Week 10
Class 1 (March 12)
Informal Desk Crits
Class 2 (March 14)
Round-table discussion: Prototype design

Week 11
Class 1 (March 19)
Informal Desk Crits
Class 2 (March 21)
Guest Crit: Refined Prototype, concepts, and designs

Week 12
Class 1 (March 26)
Informal Desk Crits
Class 2 (March 28)
Round-table discussion: Final Designs

Week 13
Class 1 (April 2)
Informal Desk Crits
Class 2 (April 4)
Informal Desk Crits

Week 14
Final Pin-Up & Reviews

Means of Evaluation

The course evaluation will be based on the development and execution of the final prototype, which would include all documentations, preliminary rapid prototypes, presentations, discussions, and the final finished product. The breakdown for this would be as follows:

Concept Development

Initial, individual research, and idea development. The bulk of this segment's grade will be allocated during the first pin-up. However, the full scope of the project's development will be taken into consideration for the final grade. 20%

Rapid Prototypes

Early prototypes will be presented during the mid-term crit. They will be based on the concept development, which will include supporting documentation and refined research. 20%

Design Development

Refinement of the final design, which will be presented during March 22 crit. This presentation will include support documentation that illustrates the design's process from concept to prototype, as well as, a refined prototype. 25%

Final Presentation

Final prototype, which will be presented during the final pin-up and review. This presentation will include an edited version of all phases of the design development, as well as, documentation of the final design. 35%

Note: A passing grade in the 'Final Presentation' is required in order to pass the course as a whole.

Total 100%

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

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance

B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	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	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

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.

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. Academic Accommodations. Students who require an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to their instructor or the designated contact person in EVDS, Jennifer Taillefer (jtaillef@ucalgary.ca). Students who require an accommodation unrelated to their coursework or the requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience). For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/
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. Appeals: If a student has a concern about the course, academic matter, or a grade that they have been assigned, they must first communicate this concern with the instructor. If the concern cannot be resolved with the instructor, the student can proceed with an academic appeal, which normally begins with the Faculty:
<http://www.ucalgary.ca/provost/students/ombuds/appeals>
5. Information regarding the Freedom of Information and Protection of Privacy Act (<https://www.ucalgary.ca/legalservices/foip>)
6. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
7. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
8. Contact Info for: Student Union (<https://www.su.ucalgary.ca/contact/>); Graduate Student representative (<https://gsa.ucalgary.ca/about-the-gsa/gsa-executive-board/>)
Student Union Wellness Centre: <https://www.ucalgary.ca/wellnesscentre/>; Library Resources: <http://library.ucalgary.ca/> and Student Ombudsman's Office (<http://www.ucalgary.ca/ombuds/>).