# Senior Research Studio in Architecture Architectural Prosthetics: Exploring the Home Health Frontier

EVDA 782 B01 W (0-16) Winter 2015

Manager: John Brown

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## Introduction

A research design studio in which students collaborate with design faculty in exploring projects that engage contemporary issues defining the built and natural environments. Students choose topics outlined by faculty research expertise, including sustainable design, digital design and fabrication, architecture and the contemporary city, and innovative practice.

This section of the studio will explore housing and aging-in-place at a high level of design consideration, including the construction of a full scale 300 sqft prototype dwelling

# **Objectives**

- 1. To develop an ability to design a residential space to a high level of development.
- 2. To develop an ability to synthesize real world economic, social, and technical realities into the design of an architectural project.
- 3. To develop an ability to incorporate home health and aging-in-place design strategies into a domestic environment.

# Teaching Approach

This is a research studio attached to **make**Calgary: the Faculty's community based research platform. The goal of **make**Calgary: is to integrate real world projects and engagement with industry professionals and community leaders into the academic program. This form of project based work is a critical opportunity for faculty researchers, students, and industry professionals to 1)work together and analyze current trends in architecture, planning, and environmental design practice; 2) challenge current professional orthodoxies; and 3) propose new strategies, processes, and technologies that are better suited to address the current environmental and socio-cultural challenges and opportunities.

The studio will benefit from the involvement of Charron Ungar, CEO of Avi Urban, one of the city's leading residential construction firms. It will also benefit from the involvement of the Alberta Real Estate Foundation, the TriWood Community Association and researchers from the Faculty of Medicine and the O'Brien Institute for Public Health.

# **Content: Topic Areas**

A medical prosthetic is a device that substitutes for, or supplements, a missing or defective part of the body. This studio explores the idea of architectural prosthetics as an augmentation to a domestic environment to assist chronically ill and aged individuals stay at home, avoiding an already overburdened acute and continuing care system.

Like current generation medical prosthetics, an architectural prosthetic for home health should be pervasive and functionally transparent, providing an appropriate level of assistance with a minimum of disruption or identification (to either the individual or public) of the corrective action. It should also be discreet, allowing temporary insertion into a domestic environment without permanently altering the home's functionality or design quality.

The studio will engage two projects. First, and as a group, will be the design and construction of a full scale working prototype dwelling for aging-in-place. The residence will be a single story

laneway residence of approximately 300 sq ft. The second project is individual and will be the design of a modest multi-family residential infill project in the community of Tri-Wood.

#### Course Schedule:

The class is scheduled Monday, Tuesday, Wednesday, and Friday afternoons (2:00-6:00) and it is expected that students will be present and working in the studio during these times. Generally speaking, the class will meet for formal discussion and review sessions on Mondays, Wednesdays and Fridays. Field trips may or may not be able to be scheduled during regularly scheduled classes.

## **Means of Evaluation**

The course evaluation will be based on the projects completed during the term. Each project will be graded for both content and presentation. There will be no final examination.

Group design/build Laneway house 50% Individual multi-family design project 40% Final Documentation 10%

Total: 100%

# **Grading Scale**

Faculty shall use the following methods for reporting grades and for determining final grades. Final grades shall be reported as letter grades, with the grade point value as per column 2. Final grades shall be calculated according to the 4-point range in column 3. Should faculty members evaluate any individual exams or assignments by percentage grades, the equivalents shown in column 4 shall be used.

Students must be informed of the method of calculation, and should be able to, from the grades provided by the instructor, determine their standing.

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range. Assignment(s) evaluated by percentage grades, will be converted into letter grade equivalents as shown.

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
Α-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
В	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.
С	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	

#### Notes:

- 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.

# Readings

Readings will be assigned as required over the course of the term.

# **Special Budgetary Requirements**

The University has approved supplemental fees for this course in the amount of \$92.00

#### **CACB Student Performance Criteria:**

The following CACB Student Performance Criteria will be covered in this course at a secondary level: A3: Graphic Skills; B1: Design Skills.

#### 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 Student Accessibility Services, please contact their office at 220-8237. (http://www.ucalgary.ca/access) Students who have not registered with the Student Accessibility Services 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.
- 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.
- Information regarding the Freedom of Information and Protection of Privacy Act
   (<a href="http://www.ucalgary.ca/secretariat/privacy">http://www.ucalgary.ca/secretariat/privacy</a>) and how this impacts the receipt and delivery of course material
- 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 (<a href="http://www.su.ucalgary.ca/page/affordability-accessibility/contact">http://www.su.ucalgary.ca/page/affordability-accessibility/contact</a>); Graduate Student representative (<a href="http://www.ucalgary.ca/gsa/">http://www.ucalgary.ca/gsa/</a>) and

Student Ombudsman's Office (<a href="http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights">http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights</a>).