## Sustainability in the Built Environment

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Fall 2012

Graduate Teaching Assistants: TA 1 & TA2 TBA



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#### Introduction

Sustainable development has historically been defined (Brundtland, 1987) as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Since the publishing of "Our Common Future" several decades back, governments, corporations, organizations and citizens have been struggling to understand the implications of industrialization, population growth, resource depletion, information technology and other factors on our health, happiness and quality of life. Given the issues at play and the global scale of activity, the idea of sustainability has been allusive and complex, yet increasingly demanding and urgent.

The principle of sustainability recognizes people as temporary stewards of their environments, working toward a respect for natural systems and a higher quality of life. It is imperative to engage in informed examination of the built environment and to consider tools to achieve a more stable, balanced and regenerative ecosystem. This course, which encourages students to think creatively, critically and holistically, examines a spectrum of problems, principles, practices and opportunities pertaining to sustainability.

## Objectives

- > To grasp the breadth of dimensions and spectrum of understanding of sustainability
- To gain exposure to theories, principles and practices focused on sustainability (e.g., environmental, social, financial, cultural, political, spiritual, etc.)
- To be exposed to, critically consider and critique various perspectives and approaches taken on the matter of sustainability
- > To begin to position sustainability within realms of architecture & environmental design
- > To begin to formulate personal and professional positions concerning sustainability

## **Teaching Approach**

Sustainability as a concept and practice proves complex, challenging and vital. This course is structured to present a wide array of viewpoints on key ideas and areas. The class will meet once a week for 3 hours to explore timely issues regarding sustainability. Classes will include a diversity of experiences, such as guest lectures, films, discussions, panels, and individual & group assignments aimed at gaining a wide & rich understanding of this at times complicated concept. Lectures will be delivered by a series of academics and professionals versed and active in realms of sustainability. Students are expected to critically consider the range of approaches being discussed in our classes and to begin to formulate, delineate & articulate their own positions.

#### **Content: Selected Topic Areas**

- > Overview of Sustainability {especially considering Architecture & Environmental Design}
- Site Planning & Design
- Ecology | Landscapes
- Integration & Holism
- Building Performance
- Environmental Quality
- Energy | Resources
- Community | Planning | Urban Issues
- Development Ethos
- International & Cultural Dimensions

#### **Means of Evaluation**

The course evaluation will be based on the following assignments completed during the term, which includes a project, presentation, paper & journal. There will be no final examination.

Site Planning + Design Project Sustainability Initiative & Presentation	20% 30%
Scholarly Paper	30%
Journal	20%
Total	100%

#### **Grading Scale**

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
В	3.00	2.85-3.14	73-75.99	Satisfactory performance
В-	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.
С	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	

Notes:

A student who receives a "C<sup>+</sup>" 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.

## **Required Textbooks**

Kibert, Charles J. <u>Sustainable Construction: Green Building Design + Delivery</u> (2<sup>nd</sup> Edition). New Jersey: John Wiley & Sons, 2008.

Venhaus, Heather. <u>Designing the Sustainable Site</u> (1<sup>st</sup> Edition). New Jersey: John Wiley & Sons. 2012.

#### **Important 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.
- 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.
- Plagiarism Plagiarism involves submitting or presenting work in a course as if it were the 3. 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 (<u>http://www.ucalgary.ca/secretariat/privacy</u>) 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 (<u>http://www.ucalgary.ca/security/safewalk</u>)
- Contact Info for: Student Union (<u>http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info</u>); Graduate Student representative(<u>http://www.ucalgary.ca/gsa/</u>) and Student Ombudsman's Office (<u>http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights</u>).

# **Special Budgetary Requirements**

Mandatory Fees | The University has approved supplemental fees for the following courses:

#### 2012/2013 SUPPLEMENTARY COURSE FEES

ARST 484/EVDA 580/EVDS 603 - Studio I Design Thinking	\$92.00
ARST 483/EVDA 501/EVDS 601 – Interdisciplinary Seminar	\$200.00
ARST 444/EVDA 582 - Studio II in Architecture	\$92.00
EVDA 621 – Intro to Design Theories	\$200.00 (for new-to-EVDS M1 students only)
EVDA 682.02 – Intermediate Studio	\$92.00
EVDA 682.04 - Comprehensive Arch. Studio	\$92.00
EVDA 782 - Senior Arch. Studio (all sections)	\$92.00

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

The following CACB Student Performance Criteria will be covered in this course at a primary level (other criteria will be covered at a secondary level): A1. Critical Thinking Skills; A6. Human Behaviour, B3. Site Design, B4. Sustainable Design, and, D2. Ethics & Professional Judgment. *(see CACB SPC matrix for further details)* 

## **Contact & Office Information**

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Please contact instructors and teaching assistants with any questions or concerns. Meetings by appointment.





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