



<b>Course Number</b>	ARCH680.21	<b>Classroom</b>	TBD
<b>Course Name</b>	Sustainable Design Theory		
<b>Pre/Co-Requisites</b>	-		
<b>Instructor</b>	Dr. Zhongming Shi	<b>Office Hours/Location</b>	by appointment/zoom
	<b>Email:</b> zhongming.shi@ucalgary.ca	<b>Phone:</b> -	
<b>Class Dates</b>	All in-person: Wednesdays, Sept 7 – Dec 21, 6:00 pm to 8:30 pm		
<b>Instructor Email Policy</b>	For example: Please note that all course communications must occur through your @ucalgary email, and I will respond to emails sent via student's @ucalgary emails within 72 hours.		
<b>Name and Email of Teaching Assistant(s)</b>	-		

## Course Description

The City of Calgary declares a climate emergency. The city and the nation are rolling out plans to achieve net-zero emissions by 2050. The building and city sector is one of the crucial factors in such plans. New job opportunities dedicated to environmental sustainability have merged in the architectural design industry. This course provides the expertise in sustainable architectural and urban design theories outlined in the prevailing professional certification systems.

Beyond the environmental aspect of sustainability, this course also explores the social aspect in sustainable design. Such social aspects include topics on changing demographics (e.g., health and aging society), automation in mobility (e.g., freight and passenger), equality (e.g., gender, labor rights).

The in-person session focuses on one topic of sustainability issues each week and consists of (guest) lectures and seminar discussions. The 0.5 tutorial hours are used for individual meetings between the instructor and the student to work on the chosen one environmental aspect and one social aspect to be integrated into the student's design studio project.

**Course Hours:** 3 units (2.5 – 0.5 Tutorial)

## Online Delivery

This course will take place in-person and the guest lectures will take place **online** via Zoom. Students are required to participate in the asynchronous learning tasks using the D2L learning environment and synchronous Zoom sessions.

## Course Learning Outcomes

Upon completion of this course, students will know and be able to:

1. understand sustainability in built environment
2. formulate sustainable design solutions on both architectural and urban scale for environmental and social aspects of sustainability
3. get familiarized with sustainable design theories outlined in the prevailing professional certification systems
4. apply and integrate sustainable design theories in the design processes
5. ideate through discussion and present the design outcome

## Learning Resources

No textbook is required.

Readings for each week will be provided in advance on D2L.

### **Technology requirements (D2L etc.):**

In order to successfully engage in their learning experiences at the University of Calgary, students are required to have reliable access to the following technology for online guest lectures and D2L platform access:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection
- [Student IT Resources](#)

Most current laptops will have a built-in webcam, speaker and microphone.

### **Workshop Safety Training Requirement**

If a course requires the use of the SAPL workshop, students must complete all online University of Calgary safety courses, the online Trajectory safety training course, as well as in-person workshop training and a grade of pass on the final evaluation project, to be granted access to the SAPL workshop. This training is offered once a year, around the start of the Fall term and has a completion deadline.

## Additional Classroom Conduct and Related Information

### Guidelines for Zoom Sessions in Online Classes

Students are expected to participate actively in all Zoom sessions, if any, and to turn on their webcam. Please join our class in a quiet space that will allow you to be fully present and engaged in the Zoom sessions. Students must behave in a professional manner during the session. Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

## Assessment Components

Assessment	Description	Weight	Aligned Course Learning Outcome
1. Completion and quality of weekly summaries of the readings	-	40%	1 and 2
2. Class attendance and participation in class discussions	-	25%	5
3. One-page essay:	What is sustainability in future scenarios?	10%	1
4. Final presentation and report	Apply one environmental and one social aspects of sustainable design theory in the studio design project	25%	1, 2, 3, 4 and 5

## Assessment and Evaluation Information

### Attendance and Participation Expectations:

Attendance and class discussion participation have a 25% weight of the final grades.

### Guidelines for Submitting Assignments:

Assignment should be submitted before the end of the day (before midnight) of the deadline date through D2L Dropbox in PDF format named as "mm\_dd(submission deadline date)\_surname, first name". An example file name: "09\_15\_Doe, John"

### Final Examinations:

No final examination for this course.

### Expectations for Writing (<https://www.ucalgary.ca/pubs/calendar/current/e-2.html>):

Writings must be in clear English using single-spaced 11 pt Arial font and APA citation style.

### Late Assignments:

1% deduction towards the final grade for each day of late submission.

Criteria that must be met to pass:  
 Students are required to pass all the course components to successfully pass the course.

## Grading Scale

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.

The School of Architecture, Planning and Landscape will not permit the Flexible Grade Option (CG Grade) for any course offered by the School. (<https://www.ucalgary.ca/pubs/calendar/current/salp-3-3.html>)

## CACB Student Performance Criteria

The following CACB Student Performance Criteria will be covered in this course at a primary level: B1. Critical Thinking and Communication; B4. Cultural Diversity and Global Perspectives; B5. Ecological Systems.

The following CACB Student Performance Criteria will be covered in this course at a secondary level: A3: Design Skills; A6: Urban Design.

## Topic Areas & Detailed Class Schedule

Course Schedule Date	Topic	Assignments/Due Dates
Sept 7	<b>Introduction and overview: sustainability in future scenarios</b>	-
Sept 14	<b>Carbon</b>	Summary due on Sept 12
Sept 21	<b>Solar</b>	Summary due on Sept 19
Sept 28	<b>Urban microclimate</b>	Summary due on Sept 26
<i>Friday September 30</i>	<i>National Day for Truth and Reconciliation</i>	-
<i>Oct 3 - 7</i>	<i>Fall Block Week</i>	-
<i>Monday October 10</i>	<i>Thanksgiving Holiday</i>	-
Oct 12	<b>Ecosystem services</b>	Summary due on Oct 11
Oct 19	<b>Human Scale</b>	Summary due on Oct 17
Oct 26	Guest lecture 1	-
Nov 2	<b>Mobility</b>	Summary due on Oct 31
<i>Nov 7 – 10</i>	<i>Term Break</i>	-
<i>Friday November 11</i>	<i>Remembrance Day</i>	-
Nov 16	<b>Health and Aging Society</b>	Summary due on Nov 14
Nov 23	<b>Equality</b>	Summary due on Nov 21
Nov 30	Guest lecture 2	-
Dec 7	Final presentation	-

The schedules and dates above are subject to change upon confirmation of guest lectures.

## Guidelines for Zoom Sessions

Zoom will be used for guest lectures and these sessions will be recorded.

Zoom is a video conferencing program that will allow us to meet at specific times for a “live” video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith, and respect (as per the [Code of Conduct](#)). When entering Zoom or other video conferencing sessions (such as MS Teams), you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behaviour in these sessions may affect others. Participants are required to use names officially associated with their UCID (legal or preferred names listed in the Student Centre) when engaging in these activities.

Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies (e.g. [Student Non-Academic Misconduct Policy](#)). If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your zoom sessions visit:

<https://elearn.ucalgary.ca/guidelines-for-zoom/>

If you are unable to attend a Zoom session, please contact your instructor in advance to arrange an alternative activity for the missed session (e.g., to review the recorded session). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions. Students will be advised by their instructor when they are expected to turn on their webcam (for group work, presentations, etc.).

The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only and will not be shared or used for any other purpose.

## Special Budgetary Requirements

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## University of Calgary Policies and Supports

**COVID-19 PROCEDURE FOR SICK STUDENTS:** <https://www.ucalgary.ca/risk/covid-19-procedure-for-sick-students>

**UNIVERSITY OF CALGARY COVID-19 UPDATES:** <https://www.ucalgary.ca/risk/emergency-management/covid-19-response>

## **ACADEMIC ACCOMMODATION**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy>

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: <https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

Students needing 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 (contact information on first page above).

SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/) .

## **ACADEMIC MISCONDUCT**

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit:

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf>

Additional information is available on the Academic Integrity Website

at <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

## **COPYRIGHT LEGISLATION:**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright ([www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf](http://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf)) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy (<https://www.ucalgary.ca/pubs/calendar/current/k.html>).

## **INSTRUCTOR INTELLECTUAL PROPERTY**

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course

materials with other students enrolled in the course at the same time may be allowed under fair dealing.

### **FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY**

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

### **SEXUAL VIOLENCE POLICY**

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>

**UNIVERSITY STUDENT APPEALS OFFICE:** If a student has a concern about a grade that they have received, they should refer to Section I of the Undergraduate Calendar (<https://www.ucalgary.ca/pubs/calendar/current/i-3.html>) which describes how to have a grade reappraised. In addition, the student should refer to the SAPL's Procedure for reappraisal of grades

### **OTHER IMPORTANT INFORMATION**

Please visit the Registrar's website at:

<https://www.ucalgary.ca/registrar/registration/course-outlines> for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk