Course Number: SUST 403

Course Name: Research Methods in Sustainability

Classroom: ▉▉▉▉

Instructor: Dr Rebecca Laycock Pedersen

- Email: rebecca.laycockpeder@ucalgary.ca
- Office Hours and Location: 2:00-3:00pm Tuesdays, ▉▉▉▉.
- Instructor Email Policy: Please note that all course communications must occur through your @ucalgary email, and I will respond to emails sent via students' @ucalgary emails within two working days. Please don't hesitate to send reminder emails if you are awaiting a response that has taken longer than two working days.

Class Dates: Tuesdays, September 5 – December 6, 3:30-6:20pm

Course Description:

- This is the third core course of the Embedded Certificate in Sustainability Studies and provides experiential learning experience through carrying out research projects. The research projects will link the understandings of sustainability gained in SUST 201 and SUST 401 with students' personal and career goals, while also introducing students to concepts, methods, and issues in sustainability research. Research projects will be rooted in real-life research scenarios and students will engage with sustainability practitioners outside of academia. Smaller assignments provide the scaffolding to successfully carry out the research project and opportunities to reflect on learning.
- Classes will include lectures, videos, discussions, student-led learning activities, and active participation in group work and learning activities. Students will be encouraged to engage in the course through asking questions and formulating their own ideas. There will be in-class work time during which students will discuss and receive feedback on their research projects from the instructor.
- See: http://www.ucalgary.ca/pubs/calendar/current/sustainability-studies-sust.html#42745
- Academic Calendar description: https://contacts.ucalgary.ca/info/evds/courses/f23/SUST403
- Course Hours: 3 units; (3S-0)

Requisites: See Section 3.3.5 of the Academic Calendar for more information regarding School of Architecture, Planning and Landscape courses.

- Prerequisite(s): SUST 401
- Corequisite(s): none

Course Delivery:

- In-person Delivery

Course Learning Outcomes:

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

1. Describe the process of social research, and define and describe terms and methods associated with social research in sustainability.
2. Conduct social research on a sustainability topic, including reviewing literature, designing a study, collecting and analyzing data, and presenting findings in writing and orally.
3. Identify ethical risks in sustainability research with human participants (related to consent, fairness and equity, privacy and confidentiality, and conflicts of interest) and use strategies to mitigate and address these risks.
4. Discuss and reflect on quality, values, and participation in sustainability research with human participants.
5. Reflect on the relevance of the course topics in their personal and professional lives.

Learning Resources:

- All readings are included in the detailed class schedule (below).

Assessment Components:

The University policy on grading and related matters is described in F.1 and F.2 of the Academic Calendar. In determining the overall grade in the course the following weights will be used:

Assessment Method	Due date	Weight	Aligned Course Learning Outcome
TCPS2 Core Tutorial (individual)	September 15 at 5pm	10%	3
Teaching methods activity (group work)	October 10 at 3:30pm	10%	1
Literature review (individual)	October 30 at 5pm	20%	2
Research project (group work)	December 5 at 3:30pm	40%	1, 2, 3, 4
Reflective journal (individual)	December 12 at 5pm	20%	(3), 4, 5

- Assessment and Evaluation Information:

- o Assignment descriptions, due dates, and other related materials can be found on D2L.
- Attendance and Participation Expectations:
  - o Attendance in in-class sessions are mandatory. Please email the course instructor at rebecca.laycockpeder@ucalgary.ca if you are unable to attend class.
- Guidelines for Submitting Assignments:
  - o Assignment submission guidelines vary by assignment and can be found in the assignment descriptions on D2L.
- Final Examinations:
  - o There is no final examination for this course.
- Expectations for Writing:
  - o Written assignments should be of an academic standard. If you need support with your academic writing, please seek out writing support here: https://www.ucalgary.ca/pubs/calendar/current/e-2.html
- Late Assignments:
  - o Please let your instructor know immediately if you cannot meet the deadlines specified. You may be required to provide supporting documentation, as per Section M.1 of the Academic Calendar to support your request.
- Criteria that must be met to pass: A passing grade on all assignments are required to pass the course. If students do not complete or fail a required component of the course, this will be handled on a case-by-case basis.

Flexible Grade Option (CG Grade):

As per Section 3.5.1 of the Academic Calendar, the School of Architecture, Planning and Landscape will not permit the Flexible Grade Option (CG Grade) for any course offered by the School.

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	
C+	2.30	2.15-2.49	65-69.99	
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	Minimum grade requirement for prerequisite courses.
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	

Topic Areas and Detailed Class Schedule:

Please note that readings may be subject to changes. If/when changes are made, these will be communicated via D2L.

Date	Content	Teaching/ learning activities	Reading materials	Assignments
Sept 5	• Instructor and Course Introductions • What is research?	Lecture, small and large group discussion		Introduce Assignment 1 & 4

Sept 12	• Introduction to sustainability research
	• Research ethics
		Lecture, small and large group discussion	**Required reading**
			Kajikawa, Y. (2008). Research core and framework of sustainability science. Sustainability Science, 3, 215-239.
			
			Bryman, A. (2021). Social research methods. Oxford University Press.
			    The Nature and Process of Social Research: pp. 42-73
			    Ethics in research: pp. 307-339
				TCPS2 Core Tutorial due September 15 at 5pm

Sept 19	• Research paradigms
	• Qualitative & quantitative research
	• Quality in social research
		Lecture, small group discussion	**Required reading**
			Bryman, A. (2021). Social research methods. Oxford University Press.
			    Qualitative and quantitative research: 113-116
			    Quality in social research: pp. 134-138
			
			Fryer, T. (2022). A short guide to ontology and epistemology (why everyone would be a critical realist). https://tfryer.com/ontology-guide/	

Sept 26	• Transdisciplinary research • Participatory approaches	Lecture, small group discussion	**Required reading** Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., ... & Thomas, C. J. (2012). Transdisciplinary research in sustainability science: practice, principles, and challenges. Sustainability science, 7, 25-43. Horcea-Milcu, A. I., Leventon, J., & Lang, D. J. (2022). Making transdisciplinarity happen: Phase 0, or before the beginning. Environmental science & policy, 136, 187-197.	

			VSO (2004). Participatory Approaches: A facilitator's guide. https://www.participatorymethods.org/resource/participatory-approaches-facilitators-guide	
Oct 3	• Reviewing the literature	Lecture, small group discussion	**Required reading** Bryman, A. (2021). Social research methods. Oxford University Press. Reviewing the literature: pp. 234-270	
Oct 10	• Data collection	Student presentations	**Required reading** Bryman, A. (2021). Social research methods. Oxford University Press. Ethnography & participant observation: 980-1049 Interviews: 1057-1114 Focus groups: 1126-1179 Analysing documents: 1235-1293 Questionnaires/surveys: 544-603	Teaching methods activity due October 10 at 3:30pm
Oct 17	• Group Project work time & Instructor check-in	In-class work time to work on recruitment materials and consent forms		
Oct 24	• Asking questions	Lecture, small group discussion	**Required reading** Bryman, A. (2021). Social research methods. Oxford University Press. Asking questions: 604-651	
Oct 31 🎃	• Data analysis	Lecture, button coding activity	**Required reading** Saldana, J. (2009). Chapter 1: An introduction to codes and coding. In *The Coding Manual for Qualitative Researchers* (pp. 1-31). Sage. https://www.galtung-institut.de/en/docs/qualitative-data-analysis/?bp-attachment=QA_Saldana_CodingManual_HS16.pdf	Literature review due October 30 at 5pm
Nov 7	• Group Project work time & Instructor check-in	In-class work time		
Nov 14	• Term break			
Nov 21	• Group Project work time &	In-class work time		

	Instructor check-in			
Nov 28	• Group Project work time & Instructor check-in	In-class work time		
Dec 5	• Group project presentations	Student presentations		Research project due on December 5 at 3:30pm
Dec 12				Reflective journal due December 12 at 5pm

University of Calgary Policies and Supports:

UNIVERSITY OF CALGARY COVID-19 UPDATES AND PROCEDURES

https://www.ucalgary.ca/risk/emergency-management/covid-19-response/covidsafe-campus

ACADEMIC ACCOMMODATION

https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations

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/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf

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).

Student Accessibility Services 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/.

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 Procedures please visit:
- Student Academic Misconduct Policy: https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy
- Student Academic Misconduct Procedure: https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure

Additional information is available on the Academic Integrity Website at https://www.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 (https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) 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 AND GENDER-BASED 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 and Gender-Based Violence Policy guides us in how we respond to incidents of sexual and/or gender-based violence, including supports available to those who have experienced or witnessed sexual/gender-based violence, or those who are alleged to have committed sexual/gender-based 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/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy.

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.

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