

GEOGRAPHY FINAL COURSE OUTLINE: FALL 2023

GEOGRAPHY 483 – WAYS OF KNOWING

Class Number 72562

Section	Days	Time	Location
LEC 01	MW	9:30 – 10:45 AM	ES 443
T01	M	1:00 – 1:50 PM	EDC 386

Instructor: Dr. Tricia Stadnyk, P.Eng.	Office: ES 458
Telephone: 403-220-6586	Email: tricia.stadnyk@ucalgary.ca Email communication will be through your UCalgary email address.

The **Department of Geography** condemns the longstanding and continued injustices against those marginalized by racism, sexism, homophobia, transphobia, classism, xenophobia, able-bodied normativity, mental health profiling, and other forms of prejudice. We are pained by the fact that injustices are unevenly borne. <https://arts.ucalgary.ca/news/anti-racism-statement>

Territorial Acknowledgement

The Department of Geography would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III. <https://www.ucalgary.ca/indigenous/cultural-protocol>

The instructor would like to acknowledge this land is known to the Blackfoot people as Mohkinststiss, defining where the Elbow meets the Bow River.

Official Course Description

Conceptualizing human-environment-nonhuman realities into research: an introduction to philosophical foundations of ways of thinking and critical perspectives; qualitative and mixed methods approaches. Examination of the 'rules' of research, with the intent to challenge the biases in scientific knowledge through the lens of real-world complexity (i.e., wicked problems).

Course Objectives

In this course, students will:

1. Understand the biases present in modern science and learn about different types of knowledge systems;
2. Appreciate Indigenous Traditional Knowledge systems and significance of the land and water;
3. Apply geospatial intelligence to visualize and communicate complex information and data;
4. Understand the role of artificial intelligence (AI) in knowledge generation;
5. Learn to identify and combat (dis)misinformation, unfactual or junk science; and
6. Apply integrative thinking and blended knowledge systems approaches to high uncertainty, high consequence problems

Course Learning Outcomes

The Department of Geography is committed to student knowledge and skill development. The table below lists the key learning outcomes for this course, the program-learning outcomes to which they contribute, and the expected level of achievement.

Course Learning Outcomes	PLO(s)*	Level(s)**
Students should be aware of and understand the theoretical foundations of the different knowledge systems introduced in the course	1235	2

Students should be able to convey complex transdisciplinary problems using geospatial techniques or SciArt to general audiences	1234567	2
Students should be aware of the role of artificial intelligence in knowledge generation	1258	1
Students should be capable of identifying (dis)misinformation from factual, credible knowledge	1258	1
Students should demonstrate application of a blended divergent knowledge systems approach to thinking	1-8	3

**PLOs = Program Learning Outcomes: 1 = reflect and communicate diverse human-environment perspectives, 2 = identify and explain human-environment processes, 3 = implement sampling, data collection, analyses and communication methods, 4 = analyze spatial and temporal aspects of human-environment systems, 5 = employ knowledge, arguments, and methodologies for solving human-environment problems, 6 = evaluate geospatial data and manipulate it to create cartographic products, 7 = communicate geographic concepts using oral, written, graphic, and cartographic modes, and 8 = demonstrate literacy skills.*

***Levels: 1 = Introductory, 2 = Intermediate, and 3 = Advanced.*

Prerequisites:

Prerequisite(s): 3 units from Urban Studies 253, Geography 251, 253 or courses labelled Geography at the 300 level or above. Antirequisite(s): Credit for Geography 483 and 340 will not be allowed.

Learning Resources

Brown, Harris and Russell. 2010. *Tackling Wicked Problems: Through transdisciplinary imagination*. Earthscan from Routledge. 312p. ISBN: 978-1-84407-925-4 paperback (\$76 on Amazon)

Readings will be assigned each week (open source or provided through D2L). All materials for the course will be disseminated through the D2L site.

Learning Technologies and Requirements

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology.

- A computer with a supported operating system, as well as the latest security and malware updates
- A current and updates web browser
- Webcam (built in or external)
- Microphone and speaker (built in or external) or headset with microphone
- Broadband internet connection

Grading (Weighting)

Class participation	10
Assignments/Tutorials (10 tutorials x 3% ea)	30
Project (7 components, 4 term deliverables)	60
Total	100

There is no final or midterm examination in this course.

It is a requirement to *pass* all components of the course to pass the course as a whole.

Late Policy

Each student starts with a 'late bank' of 3 credits (3 days late); following that students will be deducted - 20% per day (including weekends) up until the student receives a mark of zero and/or the solutions are posted (in which case the student receives a mark of zero).

Class Participation (10%)

Each student will be assigned a name tent, which they are expected to bring to class. Participation will be assessed cumulatively, over the term, in lecture and tutorial. Missing one day, or not participating on a given day, will not result in any lost marks. The instructor recognizes that there are many ways of taking information, and many different learning styles – students who are less verbal and more reflective will not be penalized for this, but will be assessed on their participation in activities during tutorial and commitment to the learning (e.g., readings). Students are expected to meaningfully reflect in this course and share their ideas, thoughts and feelings openly and honestly. It is this component that students are being assessed on.

Assignments/Tutorials (30%)

Activities to be done in weekly tutorial session and make up “assignments” portion of the mark (30%) and are designed to be hands-on applications of the course material being taught and/or support for project deliverables. Assignments will be issued on Monday mornings and will be completed in laboratory sessions. Attendance to labs is required, unless otherwise approved by the course instructor. Assignments are designed to be completed in the lab session and will be handed in electronically through the D2L portal, unless otherwise stated by the instructor.

Project (60%)

This project is designed to highlight the uniqueness of the Geography mindset, showcasing complex global ‘wicked societal problems’, and the skills of Geographers in addressing these challenges. The final presentation will be an open house event, where family and friends encouraged to attend to provide a diverse audience to test students’ communication skills. The event may also include external high school students as a means of showcasing Geography for prospective students.

Project will be conducted in teams of 2 to 4 members. Individual assessments will be required of all team members, including yourself, and will be used to individually weight the combined group mark.

Goal: Apply Mode2 thinking and analysis skills or post normal science to high uncertainty, high consequence decision-making in support of progress towards the sustainable development goals (SDGs). 'Wicked' is the term used to describe some of the most challenging and complex issues of our time, many of which threaten human health. E.g., climate change, biodiversity loss, persisting poverty, the advancing obesity epidemic, and food insecurity.

- ➔ Context: SDG wicked problem plagued by multiple complexities, inter-dimensional issues, a cascade effect (one “solution” affects another SDG), and global consequence
- ➔ Requirement: Students will need to demonstrate they have applied different methodological approaches (i.e., analytical/numerical, geospatial intelligence, artificial intelligence and/or artistic rendering) through the lens of multiple knowledge systems (i.e., western physical science, social science, animal ways of knowing, non-human (AI), Traditional knowledge, etc.)
- ➔ Why? This project is designed to further your understanding of action/consequence and the human connectedness to the natural, physical and social system(s). Explore the the human/societal side/consequence of physical change, but also the human/societal role in causation of the physical change.
- ➔ Expected Outcome: Present a new perspective, proposed methodology, or new dataset to address a Grand Challenge related to one or more of the SDGs to develop new knowledge produced from the application of Mode 2 (outcome focused) methods.

Evaluation of Project Components (60% of final mark)

Deliverable 1 – Wicked problem, challenges and proposed approach	10%	Sep 15
Deliverable 2 – Assessment method (qualitative & quantitative)	10%	Sep 29
Deliverable 3 – StoryMap®	10%	Oct 27

Deliverable 4 – Policy brief	10%	Nov 24
Deliverable 5 – Infographic summary (Geospatial or SciArt)	10%	Dec 1
Open house Presentation	25%	Dec 4
Technical Report	25%	Dec 6

Referencing Standard

In written work presented in this class, the accepted method for referencing the work of others will be the American Psychological Association (APA) format.

Grading System

96 – 100	A+	77 – 80	B	59 – 61	C-
90 – 95	A	71 – 76	B-	55 – 58	D+
86 – 89	A-	65 – 70	C+	50 – 54	D
81 – 85	B+	62 – 64	C	0 – 49	F

In the event that a student misses a midterm or any course work due to illness, supporting documentation, such as a medical note or a statutory declaration will be required see: <https://www.ucalgary.ca/pubs/calendar/current/m-1.html>

Please refer to <https://www.ucalgary.ca/registrar/registration/appeals/student-faq> for frequently asked questions concerning the provision of a medical note/statutory declaration.

Supplementary Fees

Not applicable

Classroom Expectations – What I expect from you

1. *Contract:* Students are expected to read and understand the course syllabus. By remaining in the class, you agree to be subject to the “terms of this contract”.
2. *Classroom Environment:* All students attending classes have the right to learn. Students are expected to actively and constructively participate in the learning environment. I will be in class for at least 5 minutes prior to and after the class time. I will treat you with respect and would appreciate the same courtesy in return.
3. *Collaborative Learning:* Working together is encouraged and will strengthen the learning outcomes for this course. I expect you to behave professionally, however, in that ideas are worth something: if someone helps you, have the courtesy to acknowledge them.
4. *Participation:* A large part of my teaching practice in this course will be interactive, using quizzes, questions and discussion. I do not expect perfection, but I do expect students to try – take a risk and apply a growth mindset! Respond and constructively participate to enhance collective learning opportunities. No question is a ‘stupid’ question.
5. *Feedback:* Students are encouraged to provide feedback, both positive and constructive, throughout the term, which will be used to improve the teaching and/or material presented in this course.

Classroom Expectations – What you can expect from me

1. *Environment.* I will create a safe, inclusive learning environment for all, where we can all benefit from each other’s diversity of background and experience for the collective good.
2. *Feedback.* I will conduct at least one formative feedback assessment during the term; I encourage feedback at any time on the course and my teaching for my own continuous improvement.

3. *Pace.* You can expect that I may adjust the pace and content of the course to ensure the material is *learned* and not just taught.
4. *Availability.* You can expect that I will be available during office hours, and that I will maintain an open-door policy so long as students remain respectful of my time. I endeavor to respond to student emails *within 24 hours of receipt*, unless the class is otherwise notified of my absence.
5. *Transparency.* Grading will be conducted in a fair, quantitative manner with rubrics and/or evaluation criteria posted prior to all due dates. Assessment criteria will be transparent; please approach me if you feel it is not and I will rectify this.

For additional detailed course information posted by the instructor, visit the course Desire2Learn page online at <https://d2l.ucalgary.ca/d2l/home>.

SUPPLEMENTAL INFORMATION

Principles of Conduct

The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: www.ucalgary.ca/pubs/calendar/current/k.html.

Plagiarism, Cheating, and Student Misconduct

The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

Academic dishonesty is not an acceptable activity at the University of Calgary, and students are **strongly advised** to read the Student Misconduct section in the University Calendar at: www.ucalgary.ca/pubs/calendar/current/k-3.html. Often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are (1) presenting another student's work as your own, (2) presenting an author's work or ideas as your own without adequate citation, and (3) using work completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined in the calendar at: <https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-procedure>

Instructor Intellectual Property

Information on Instructor Intellectual Property can be found at <https://ucalgary.ca/legal-services/university-policies-procedures/intellectual-property-policy>

Freedom of Information and Protection of Privacy

Freedom of Information and Protection of Privacy (FOIP) legislation in Alberta disallows the practice of having students retrieve assignments from a public place, such as outside an instructor's office, the department office, etc. Term assignments will be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they

must provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

Human subjects

Not applicable

Internet and electronic communication device information

There **are not** restrictions on the use of laptops and tablets in class if they are used to take notes or find information relevant to the class, and if there is no disturbance or distraction of other students or the instructor. Phones must be turned off during class, unless you have previously identified yourself to the instructor as a health care or law enforcement professional.

Posting of Grades and Picking-up of Assignments

Graded assignments will be returned electronically through the course D2L webpage, or in person by the instructor (in the case of the final project). Grades and assignments will not be available at the Department of Geography's main office.

Academic Accommodations

It is the student's responsibility to request academic accommodations, according to the university policies and procedures listed in the University Calendar.

The student accommodation policy can be found at: <https://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://ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure>

Students needing an accommodation based on a protected ground other than disability should communicate this need, preferably in writing to their instructor or the Department Head (email: _____).

Documentation for Absences or Missed Course Assessments

Students who are absent from class assessments (tests, participation activities, or other assignments) should inform the instructor as soon as possible. Instructors may request that evidence in the form of documentation be provided. If the reason provided for the absence is acceptable, instructors may decide that any arrangements made can take forms other than make-up tests or assignments. For example, the weight of a missed grade may be added to another assignment or test. For information on possible forms of documentation, including statutory declarations, please see

<https://www.ucalgary.ca/pubs/calendar/current/m-1.html>

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright <https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy> and requirements of the copyright act at (<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 Act.

Wellness and Mental Health Resources

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness, and academic success and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support, or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, <https://www.ucalgary.ca/wellnesscentre/services/mental-health-services>) and the Campus Mental Health Strategy website (<https://www.ucalgary.ca/mentalhealth/>).

Contact Information for Student and Faculty Representation

- Student Union VP Academic 403-220-3911, suypaca@ucalgary.ca
- Students Union Representatives for the Faculty of Arts – 403-220-3913, arts1@su.ucalgary.ca, arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca
- Student Ombuds Office information can be found at: www.ucalgary.ca/ombuds/

Campus Safewalk

Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day, to any location on Campus, including the LRT station, parking lots, bus zones, and university residences. Contact Campus Security at 220-5333 or use a help phone, and Safewalkers or a Campus Security officer will accompany you to your campus destination.