

IES*4010 Indigenous Environmental Science: Project

Semester: W26

Lecture/Lab Hours: 3-0

Academic Unit: SES

Credit Weight: 0.50

Prerequisite: IES*4000 **Indigenous Environmental Science: Methodologies in Practice**

Co-requisite: IES*4020 Indigenous Environmental Science and Practice Reflective Capstone

Restrictions: Enrolment in the BIES

Equates: n/a

Distance Education: n/a

Experiential Learning: Applied Research, Community Engaged Learning, Applied Research

Methods of Presentation: Seminar

Land Acknowledgement

The University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer respect to our Anishinaabe, Haudenosaunee and Metis neighbours. Today, this gathering place is home to many First Nations, Inuit, and Me tis peoples and acknowledging them reminds us of our important connection to this land where we work and learn.

1. Course Details

Instructor: Dr. Lauren Sneyd

Lsneyd@uoguelph.ca

Class: Tuesday 10:30-12:30

Location: Arboretum Sunroom and Nature Centre

1.1 Calendar Description

Students will complete a project engaging with Indigenous communities. The course links and integrates the practical and theoretical learning of the previous seven semesters of the program. Students will be required to apply their understanding of Indigenous Knowledge and western science to situations in which both perspectives need to be considered and braided together to generate sound and appropriate solutions. The selected projects will examine the relationships between the practice of Indigenous environmental science and the larger ecological and cultural networks in which it is embedded.

1.2 Course Description

This is an applied course which will involve a more practical than theoretical approach to learning. Students will be challenged to address real world environmental science and practice scenarios by applying the knowledge and skills acquired in the program to generate practical solutions. This course requires students to execute the project proposal developed in IES*4000. Students will examine the relationships between environmental science and practice and the larger ecological and cultural networks in which it is embedded. Students will be required to apply their understanding of Indigenous knowledge and western science to situations in which both perspectives may need to be considered and braided together to generate sound and appropriate solutions. Emphasis will be placed on demonstration of professionalism, interpersonal skills and communication, including high quality oral presentations and preparation of a written report. Knowledge mobilization will be a final component of the course.

2. Learning Resources

2.1 Required Resources

Suggested readings available on Ares and on courselink:

*Younging, Gregory. *Elements of Indigenous Style: A Guide for Writing by and about Indigenous Peoples*. Brush Education, 2018.

Windchief, S. and San Pedro, T. (Eds.). *Applying Indigenous Research Methods: Storying with Peoples and Communities*. Routledge, 2019.

Younging, G. *Elements of Indigenous Style: A Guide for Writing by and about Indigenous Peoples*. Brush Education, 2018.

Additional resources:

Absolon, Kathleen E. *Kaandossiwin: How We Come to Know*. Fernwood Books, 2011.

Chilisa, B. *Indigenous Research Methodologies*. Sage Publications, 2011.

Gross, L.W. *Anishinaabe ways of Knowing and Being*. Routledge, 2016.

Joseph, B. *Indigenous Relations: Insights, Tips & Suggestions to Make Reconciliation a Reality*. Page Two Books, 2018.

*Kovach, M. *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. University of Toronto Press, 2010.

McGregor, D., *et al. Indigenous Research: Theories, Practices, and Relationships*. Canadian Scholars' Press, 2018.

Wilson, S. *Research Is Ceremony: Indigenous Research Methods*. Fernwood Publishing, 2009.

3. Course Learning Outcomes

3.1 Course Learning Outcomes

By the end of this course you will be able to:

1. Complete a research project utilizing project management and leadership skills and the appropriate application of Indigenous and western knowledge and research methodologies
2. Develop and sustain positive, reciprocal relationships with First Nations, Métis, Inuit partner communities, community organizations or governments, using effective communication skills and methodologies to address environmental challenges utilizing both Indigenous and western scientific knowledge systems.
3. Demonstrate discipline-related skills learned in previous courses (GIS, specialized statistics, economic analyses, etc.).
4. Analyse the strengths, limitations, and impacts of the methodologies and processes used to work with your project partners.
5. Communicate ideas, arguments and analyses to Indigenous and non- Indigenous partners and audiences accurately and effectively, recognizing personal values, strengths and limitations, and respecting diverse perspectives.
6. Appreciate the needs and priorities of Indigenous communities to promote respect, protect and sustain Indigenous knowledge in Indigenous communities.

3.2 University Learning Objectives

In the process we will address a number of the [University's Learning Objectives](#) especially;

- Critical and Creative Thinking – Problem-solving and creativity
- Literacy - information.
- Communicating - written, reading, integrative.
- Professional and Ethical Behaviour - personal organization, ethical, time management.

4. Teaching and Learning Activities Woven Throughout the Seminar Discussions

4.1 Lecture Topics

1. Indigenous Methodologies
 - Respecting Indigenous research and project partners using appropriate methodologies and protocols.
 - Working with communities and knowledge holders.
 - Semi-structured interviews and focus groups.
 - Decolonialization considerations.
 - The importance of balancing the recognition and protection of Indigenous rights and interests with the promotion of environmental research.
 - Practical implications for environmental policy development and stewardship practice.
2. Research Ethics
 - History of colonial research;
 - Privacy and access to privileged information
 - Reviewing research proposals.
3. Research and Analysis Methods
 - Key practical skills including logical frameworks, theories of change, impact assessment, and project management.
 - The nature of these techniques, and how and where they are employed.
 - Conducting systematic literature/source reviews
4. Designing a project plan and selecting appropriate methodologies
 - Preparing individuals to conduct projects for and with Indigenous peoples, organizations and communities
5. Knowledge transfer and approaches to sharing results with Indigenous and non-Indigenous partners.
 - Professional reporting.
 - Making authentic contributions to Indigenous communities and scholarship.
 - Concepts, values, and skills related to effective engagement with Indigenous communities in a real-world context.

Weekly Topics and Readings

This course provides training in scientific communication via discussions, presentations, and assignments within the context of Indigenous environmental methodologies and stewardship to assist in the development of research project. The course is based on the premise that soft skills, especially communications skills, are a key prerequisite to effective Indigenous environmental science communication. The weekly content is on CourseLink. I will also update the content throughout the semester as needed, please

follow along each week, the content can change. There is also a Tab on courselink for supplementary methodology and proposal development readings.

Films for us to check out!

- Lighting the 8th Fire, curio.ca (CBC)
- The Price of Power: After the Flood, curio.ca (CBC)
- Indigenous Knowledge and Practice of Sustainability, Films on Demand

<https://guides.library.ubc.ca/IndigResearch>

<https://arramatproject.org/toolbox/methods/indigenous-research-methods/>

<https://www.uoguelph.ca/research/for-researchers/other/conducting-indigenous-research>

<https://www.dal.ca/research-and-innovation/support-for-researchers/indigenous-research-resources.html>

<https://uwaterloo.ca/research/about-research/inclusive-research/indigenous-research-team>

Week 1 Introduction and Ethics, cont. from IES*4010

Indigenous Research as Storytelling

<https://www.youtube.com/watch?v=4kcrXNurZfY>

Build a work plan

EthOs Hub – continue to build the UofG ethics application

Week 2 Ethics

EthOs Hub – continue to build the UofG ethics application

Week 3 start a research journal

Reflection on positionality and ethics – reflection on the research process

Week 4 Applying Indigenous Methodologies: Story and Method Data Collection

Making notes, organizing data

Week 5 Data Collection

Organizing data and generating themes

Week 6 Data Collection

Learning when there is enough data

Week 7 Reflection on Data Collection

Reflections on data collection and process

Week 8 Analyzing, Interpreting and Meaning Making

Analyzing data and organizing themes

Week 9 Analyzing, Interpreting and Meaning Making

Working with themes and understanding trends

Week 10 Project Development

Linking data to literature and formulating a conclusion

Week 11 Knowledge Mobilization

Ways to get the word out on findings

Week 12 Final Reflections and Presentation

Reflections on Methodology Possibilities and Challenges

Final Proposal Presentation

5. Assessments**5.1 Marking Schemes & Distributions**

Form of Assessment	Weight (%)	Content	Course Learning Outcomes	Due Date
Finalized work plan	10	Sets out timelines, benchmarks and resource requirements	1,3,4, 6	Week 2
Ethics Application	20	Submitted in a timely manner before data collection	1,2,3,4,5,6	Week 2
Draft report	20	Contains background research	1,2,3,4,5,6	Week 9

Final report	30	Outcome of research and analysis, proposed solution, next steps, identifies key data, uncertainties, options and recommendations	1,2,3,4,5,6	April 6
Presentation	10		1,2,3,4,5,6	TBD
Knowledge mobilization of the project results	10		1,2,3,4,5,6	Wek 12
Total	100%			

5.2 Assessment Details

Assignment guidelines are posted on Courselink.

6. Library Resources

The library writing center is a good place to go to learn tips and organizing practices for research methods.

The course readings identified in the course proposal for IES*4000 are either available in the library collection or have been ordered for addition to the collection.

6.1 Library Collections

The following sections provide an overview of key library collections as they pertain to the curricular and research needs for this course.

Database Collection

The library's databases of scholarly and trade articles for the disciplines pertinent to this course include the following:

- Bibliography of Native North Americans
- IPortal: Indigenous Studies Portal
- SAGE Research Methods
- CAB Direct
- Biological Sciences
- GeoBase
- GreenFILE
- Web of Science
- Agriculture & Environmental Science Collection (Proquest)
- Sustainability Science Abstracts

- AGRICOLA
- Worldwide Political Science Abstracts
- PAIS
- Sociological Abstracts

Periodicals and Journals

Over the past decade the Library has made significant strides in providing ready access to a broad range of academic journals, with a current subscription range of over 55,000 electronic journal titles. Access is available for complete collections of journals from many scholarly and trade publishers, in many cases back to the first volume. Some key publisher collections include Elsevier, Springer, Wiley, and Taylor & Francis.

The University of Guelph has access to many of the journals with the highest impact factors in their fields, as determined by the Journal Citation Reports (JCR) database. JCRs assess and rank peer-reviewed journals for each discipline. In the areas environmental studies, library coverage includes the following:

Environmental Studies Example titles include:

- Nature Climate Change
- Land Use Policy

Monographs (Books, eBooks and Reference Collections)

Specific book titles have been identified as course readings in the course proposal for IE*4000. These texts are available on our Ares course reserve site.

Absolon, Kathleen E. Kaandossiwin: How We Come to Know. Fernwood Books, 2011

Chilisa, B. Indigenous Research Methodologies. Sage Publications, 2011.

Joseph, B. Indigenous Relations: Insights, Tips & Suggestions to Make Reconciliation a Reality. Page Two Books, 2018.

Kovach, M. Indigenous Methodologies: Characteristics, Conversations, and Contexts. University of Toronto Press, 2010.

Available in library collection (eBook)

McGregor, D., et al. Indigenous Research: Theories, Practices, and Relationships. Canadian Scholars' Press, 2018.

Wilson, S. Research Is Ceremony: Indigenous Research Methods. Fernwood Publishing, 2009.

Windchief, S. and San Pedro, T. (Eds.). Applying Indigenous Research Methods: Storying with Peoples and Communities. Routledge, 2019.
Available in library collection (eBook)

Younging, G. Elements of Indigenous Style: A Guide for Writing by and about Indigenous Peoples. Brush Education, 2018.
Available in library collection (print)

6.2 Library Services Support

Beyond collections, the library provides a variety of important services to faculty and students to help support library access, research help, and academic skills.

Course Reserves

The E-Learning Operations & Reserve Services unit makes resources readily available to students with integrated into CourseLink, and with access points in Omni. Where possible course reserves are made available electronically. Print course reserves are available to students via the open stacks on the main floor, next to the Ask Us Desk. For more information contact: libres2@uoguelph.ca.

In order to ensure that all students have access to required textbooks for their courses, the Library is currently making available at least one copy of the required textbook for most undergraduate courses via the Course Reserve service. Instructors are notified via email when the required textbook(s) for courses they are teaching have been placed on reserve and are available for students to use. This program is an initiative of the Open and Affordable Course Content Task Force (OACC).

Ask Us Desk

The Library's Ask Us Desk is the main point of contact for University community members. A wide range of support services are provided from this Desk. In addition, support is available from an online chat service and through e-mail and telephone service. The Ask Us Desk is often a first point of contact for students and acts as a referral for other academic supports.

Writing Workshops

The library also host writing workshops for project development, and projects underway. Check out their schedule and see what one fits and works for you.

1. Course statements

Artificial Intelligence (AI) will not be used in this course:

Unauthorized student use of AI systems (ex. ChatGTP and others) undermines student learning, the achievement of learning outcomes and **violates the University's academic misconduct policies.**

The University is committed to ensuring that the use of AI in teaching and learning complies with existing policies and regulations that govern academic and scholarly integrity. We continue to engage the University community, including students, as we work to refine academic integrity policies and their intersection with AI tools. We affirm the following:

Students' work must reflect their unique intellectual capacity and demonstrate the application of critical thinking and problem solving. Unauthorized use of AI to complete assessments violates the fundamental intellectual purposes of the University and does not demonstrate student achievement of course learning outcomes.

Submission of materials completed by AI, without permission of the instructor, constitutes an offence under the University's academic misconduct policies, either as a form of plagiarism or the use of unauthorized aids.

Submitting a paper that has been written with AI will result in a grade of zero and an academic misconduct report will be filed with the offices of the Dean and the Chair. Only submit your own work.

Written Assignments

All course assignments are discussed in detail in the assignments guides available on Courselink. Please download them and review.

Note that extensions are not possible

- You know the due dates of assignments from the first day of classes – it is your responsibility to plan your time so that you meet those dates. Time management is one of the objectives of this class.
- Assignments must be submitted on CourseLink on the day they are due, otherwise they will be considered late.
- Emailed assignments or assignments dropped off in the main office will not be accepted.
- Computer problems are not sufficient for an extension. Make sure you back up your work.
- The exception to the late assignment/make-up exam policy is if you have a documented medical or recognized reason (in other words, only medical and compassionate reasons are recognized). Final decisions about extensions are at my discretion (i.e. documentation does not automatically equal an extension). You are responsible for contacting me in a timely manner (within one week) if you have a documented medical/family/compassionate emergency.

Emailing

If you do email the professor, please put the course code in the subject line of the email and a brief statement about the nature of the email: IES 4010. Emails without the course code will not be responded to.

Disputing a Grade

If there is an addition error, please let me know via email.

Extra Credit

There are no opportunities for extra credit in this course.

Respectful Learning Environment

Students are expected to adhere to all University policies regarding respectful conduct in all aspects of this course. This includes classroom conduct and online conduct through social media, message boards, Teams chat, etc. A respectful learning environment also includes the appropriate use of laptops and other kinds of electronic devices in class.

Course Website:

There is a course website at <http://courselink.uoguelph.ca>. All components of this course will be housed on the CourseLink site including this course outline, assignments, and links to further resources. Your assignments will be submitted through the Dropbox function. Marks and feedback will also be released on the site. Please familiarize yourself with this website as soon as possible and visit it regularly throughout the semester.

Late Assignments:

Late assignments will be accepted up to 5 days following the due date and will receive a penalty of 10% per day EXCEPT under documented grounds for compassionate consideration. Assignments submitted more than one week late without documented grounds will receive a grade of zero. If you are going to hand an assignment in late, you must contact your course instructor to inform them when you will be submitting your assignment.

Receipt of Grades:

After you receive a grade on CourseLink, please review your feedback. Any inquiry or dispute over the grade must be made within two weeks from the date they are posted. If you fail to protest any grade during this time limit, changes to the grade will not be considered. [Grades will be based on the Grading Procedures outlined in the Undergraduate Calendar.](#)

Turnitin Software:

In this course, your instructor will be using Turnitin, integrated with the CourseLink Dropbox tool, to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph.

All submitted assignments will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing academic misconduct. In this course, you may screen your own assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

2. University statements

E-mail communication:

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

When you cannot meet a course requirement:

When you find yourself unable to meet in-course requirements due to illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing with name, ID#, and email contact. [See the undergraduate calendar for information on regulations and procedures for Academic Consideration.](#)

Drop date:

Students have until the last day of classes to drop courses without academic penalty. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

Copies of out-of-class assignments:

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Accessibility:

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance, and not later than the 40th Class Day.

More information: www.uoguelph.ca/sas

Academic misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

[The Academic Misconduct Policy is detailed in the Undergraduate Calendar.](#)

Recording of materials:

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted. NO recording.

Resources:

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.