



IES*1020 Indigenous Knowledge for Environmental Science and Practice

Winter 2022

Section(s): C01

School of Environmental Sciences

Credit Weight: 0.50

Version 1.00 - January 10, 2022

1 Course Details

1.1 Calendar Description

This course gives students the opportunity to gain an understanding of Indigenous knowledge systems and their importance for environmental science and practice. Indigenous world views, ecological knowledge, environmental philosophies, and cultural values will be explored through exposure to the teaching and perspectives of Indigenous knowledge holders, community members, political leaders, academics, activists, and scholars.

Pre-Requisites: IES*1010

1.2 Course Description

Through land-based educational experiences appropriate to the seasonal pattern of the late winter and spring, students will be introduced to Indigenous ways of knowing and being in nature through culture, ceremony and ecological knowledge. Diverse Indigenous worldviews and epistemologies will be explored from a variety of perspectives through field trips, readings and guest speakers.

The conceptual and practical nature of Indigenous knowledge will be discussed, with emphasis on ecological knowledge, including ways of coming to know, the centrality of place, oral knowledge transmission, and the role of knowledge holders. The diversity and dynamic nature of Indigenous ways of knowing will be emphasized. Students will be encouraged to develop their own perspectives on right relations with the environment and to reflect on their own values, choices and actions in this context.

1.3 Timetable

Timetable is subject to change. Please see WebAdvisor for the latest information.

Currently Class One - Jan 11 and Class Two - Jan 18 will be held on line.

1.4 Final Exam

Exam time and location is subject to change. Please see WebAdvisor for the latest information.

2 Instructional Support

3 Learning Resources

3.1 Required Resources

Books (Textbook)

Geniusz, W. Makoons. (2009). *Our knowledge is not primitive: Decolonizing botanical Anishinaabe teachings*. NY: Syracuse University Press.

Johnston, B. (2011). *Think Indian; languages are beyond price*. Kegedonce Press.

3.2 Selected Readings

Asch, M., J. Borrows, and J. Tully (Editors). *Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings*. University of Toronto Press, 2018.

Atlas, W., Ban, N., Moore, J., Tuohy, A., Greening, S., Reid, A., Morven, N., White, E., Housty, W., Jousty, J., Service, C., Greba, L., Harrison, S., Sharpe, C., Butts, K., Shepert, W., Sweeney-Bergen, E., Macintyre, D., Sloat, M., Conners, K. (2020). Indigenous systems of management for culturally and ecologically resilient pacific salmon (*Oncorhynchus* spp.) fisheries. *BioScience* 71, 186-204

Awâsis, S. (2020). Anishinaabe time: temporalities and impact assessment in pipeline reviews. *Journal of Political Ecology* 27(1), 830-852. doi: <https://doi.org/10.2458/v27i1.23236>

Coleen A. Fox, C., Reo, N., Turner, D., Cook, J., Dituri, F., Fessell, B., Jenkins, J., Johnson, A., Rakena, T., Riley, C., Turner, A., Williams, J., Wilson, M. (2017). "The river is us; the river is in our veins": re-defining river restoration in three Indigenous communities. *Sustainability Science*, 11 (3)

Craft, A., 2018. Navigating our ongoing sacred legal relationship with Nibi (water). In UNDRIP Implementation More Reflections on the Braiding of International, Domestic and Indigenous Laws: Special Report (pp.53-61). Centre for International Governance Innovation and Wiyasiwewin Mikiwahp Native Centre Law Centre.

Dumont, J. Indigenous Intelligence. Inaugural J.W.E. Lecture. University of Sudbury. Sudbury, Ontario Justice and Aboriginal peoples. Canada Communication Group Publishing, 2006. ISBN 0-660-14932-x

Hamidpour, M., Hamidpour, R., Hamidpour, S., Shahlair, M. (2014). *Chemistry, Pharmacology, and Medicinal Property of Sage (Salvia) to Prevent and Cure Illnesses such as Obesity, Diabetes, Depression, Dementia, Lupus, Autism, Heart Disease, and Cancer*. *J Tradit Complement Med*. 4(2): 82–88. doi: 10.4103/2225-4110.130373

McGregor D, Whitaker S and Sritharan M (2020) Indigenous environmental justice and sustainability. *Environmental Sustainability* 43: 35-40.

McGregor D (2014) Traditional knowledge: Considerations for protecting water in Ontario. The International Indigenous Policy Journal 3(3): 1-21

McGregor, D. (2021). Indigenous Knowledge Systems in Environmental Governance in Canada. KULA: Knowledge Creation, Dissemination, and Preservation Studies (5) 1-10 <https://doi.org/10.18357/kula.148>

McGregor, D. (2005). Traditional ecological knowledge: An Anishinabe women's perspective. Atlantis, 29(2), 103–109.

Oosten, J. and Laugrand, F. (Eds.) Inuit Worldviews: An Introduction. Nunavut Arctic College, 2017.

3.2 Multi media

Jim Dumont – Creation Story (49:20 min) <https://www.youtube.com/watch?v=AB-Fi31kITs&t=561s>

Onaubinisay at the 2018 Parliament of the World's Religions

Oren Lyons on the Indigenous View of the World (1:11:29)

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

4 Learning Outcomes

4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. 1. Describe the components and characteristics of Indigenous knowledge systems.
2. Discuss Indigenous approaches to “knowledge” and “coming to know”
3. Identify the values and perspectives inherent in Indigenous knowledge systems that shape Indigenous environmental science and practice.
4. Understand the role of human and non-human persons in conceptualizing “right relations” and Indigenous ways of being in nature.
5. Recognize and describe the diversity of Indigenous knowledge systems.
6. Identify key similarities and differences across Indigenous knowledge systems with respect to underlying premises and methodologies.
7. Participate respectfully in land-based learning activities and dialogues.
8. Understand the importance and role of Indigenous knowledge holders in the transmission of Indigenous knowledge.
9. Recognize the role of storytelling, including creation stories, in Indigenous environmental science and practice.
10. Recognize the centrality of place in Indigenous knowledge systems and its importance for Indigenous environmental science and practice.
11. Communicate learnings about Indigenous knowledge systems orally and in writing.
12. Re-examine personal knowledge systems and their impact on personal values and biases using your program portfolio.

5 Teaching and Learning Activities

5.1 Lecture

Introduction

Topics:

Round table introductions
 Acknowledging Indigenous lands
 Review of terminology and the history of terms

Respectful dialogue
Teaching tools

Week 2

Topics:

What is knowledge? The nature of knowledge and information, including concepts of causality and uncertainty will be considered.

Knowledge systems and conceptual mapping

Coming to know - How do we know?

Whose knowledge? Personal and community knowledge

How do we share knowledge? Indigenous Protocols

How is knowledge connected to values?

How does knowledge inform actions and decisions

Week 3

Topics:

1. Elements of Indigenous ways of knowing and being in nature

- The diversity of cultural teachings and practices
- The dynamics of Indigenous ways of knowing: tradition and change
- Shared fundamental attributes:

- Spiritual
- Place-based
- Event-based (happenings rather than objects)
- Wholistic
- Relational
- Experience-based
- Circular: cyclical time
- Inherently rational and valid

Guest Speaker

Topics:

Guest Speaker - Dr. Henry Lickers, Canadian International Joint Commissioner

Topic: Indigenous Knowledge systems

Birch Bark vessels

Topics:

Exploring birch bark vessels as governance

Guest speaker

Week 6

Topics:

1. Right Relations:

- Creation stories
- The place of humans in the natural world and its consequences
- The animated world: all our relations
- The concept of right relations and its centrality for IES, including moral consideration of both human and non-human persons

Week 9

Topics: Indigenous ways of knowing - maple trees, harvesting sugar medicine

Who are the participants in Indigenous ways of knowing and living in nature? Ways of knowing and being in community

- knowledge seekers
- knowledge holders
- knowledge transmission

Week 10

Topics: Maple sugar medicine harvesting

Storytelling: Oral transmission and ecological narratives

Week 11

Topics: Walking the land

Guest: Joe Pitawanakwat - Creator's Garden

Tue, Mar 29, 8:30 AM - 11:30 AM

Topics: Indigenous knowledge and ceremony

conduct a water ceremony introducing protocols and women's knowledge

Tue, Apr 5, 8:30 AM - 11:30 AM

Topics: Wrap up feast with protocols, circle sharing

6 Assessments

6.1 Assessment Details

Event summaries/field report (40%)

Event summaries/Field reports - based on readings, lectures, sharing circles, guest speakers, field trips, discussions

4 summaries/field reports at 10 % each.

1st summary/report due: Feb 11

2nd summary/report due: March 4

3rd summary/report due: March 25

4th summary/report due: April 8

Relationship with water/lands/sky/ community (20%)

Reflection paper on relationship with water/land/sky/community

Can be a video, picture, art, or written

Due date: January 25th

Book Reflection (10%)

Reflection on Wendy Geniusz or Basil Johnston book.

Due April 1

Project presentation (20%)

Group presentation on lecture content and recommended readings.

Due March 22

Goal Setting and career planning (10%)

written assignment connected to a career with an Indigenous community/tribal council/organization

Due April 6

7 University Statements

7.1 Email Communication

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

7.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions

<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

7.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

7.4 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.

7.5 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 make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

For Guelph students, information can be found on the SAS website
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

7.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

7.7 Recording of Materials

Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

7.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

7.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via CourseLink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

7.10 Illness

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

7.11 Covid-19 Safety Protocols

For information on current safety protocols, follow these links:

- <https://news.uoguelph.ca/return-to-campusess/how-u-of-g-is-preparing-for-your-safe-return/>
- <https://news.uoguelph.ca/return-to-campusess/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.
