

Geography 1190 Traditional Knowledge, Science and the Environment COURSE OUTLINE 2018

Schedule: Lectures 3 hours per week
Tuesday 1:00 – 2:30 & Thursday 1:00- 2:30

Instructor: Mr. Dan Duckert, Department of Geography & Faculty of Natural Resources Management
drducker@lakeheadu.ca 630 9172 (text or email for appointment)
Office: BB1005c – using Dr. Peggy Smith's office on Tuesdays and Thursdays

Teaching Assistant:

Course materials will be posted on Desire2Learn.

COURSE OBJECTIVES & LEARNING OUTCOMES

Objectives	Outcomes – You should be able to:
Understand the mechanisms of knowledge creation	<ul style="list-style-type: none">• Articulate the differences and interactions of data, information, knowledge and wisdom
To appreciate and acknowledge Indigenous and western science.	<ul style="list-style-type: none">• Articulate the differences in data collection, perceiving information, producing and accepting knowledge in both a holistic and reductionist lens.
To appreciate the richness of the knowledge that comes from the land where we live.	<ul style="list-style-type: none">• Describe the role values and ethics play on our environmental worldview.• Describe how diversity of knowledge builds resilience in a system.
To realize the importance of a diversity of science methods and knowledge	Articulate the interdependencies of worldviews, institutions and technologies in defining our cultures and relationship to the environment.
To appreciate and acknowledge how Indigenous people have been threatened by the domination of western science and knowledge. Invisibility & colonialism.	<ul style="list-style-type: none">• Describe the major instruments and effects of colonialism.
To understand the general concepts of a systems approach to the social-ecological environment.	<ul style="list-style-type: none">• Describe the environment in terms of its structure and function.• Articulate a view of humans as participants in the environment and humans as controllers of the environment.
To challenge our concepts of sustainability and sustainable development and the human role in ensuring survival for future generations.	<ul style="list-style-type: none">• Discuss short and long term strategies to meet the security needs of people in the social-ecological system.
To provide exposure to environmental issues and their effects on local people through case	<ul style="list-style-type: none">• Discuss some of the major challenges of development and the environment through a local lens.

study examples	
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COURSE SCHEDULE:**Week 1. Jan 9th-11th,
GROUNDING OURSELVES**

1. Course Introduction
2. What is knowledge?

**Week 2. Jan 16th, 18th,
THE ENVIRONMENT**

1. Environment Structure
2. Environment Function

**Week 3. Sept 23rd – 25th,
VALUES AND ETHICS**

1. Human values: we can escape them
2. Sustainability or security?

**Week 4. Jan 30th and Feb 1st
IT IS JUST THE WAY THE WORLD WORKS**

1. Power and Trust
2. Adaptive Systems

ASSIGNMENT 1 DUE**Week 5. Feb 6th & Feb 8th
HAVE I GOT A STORY FOR YOU!**

1. The power of stories (Dr. Amy Farrell-Morneau)
2. Written instructions vs oral tradition

**Week 6. Feb 13th & Feb 15th
MATH AND TECHNOLOGY MAKE GOOD WORKERS – HISTORY MAKES GOOD CITIZENS.**

1. Enlightenment
2. Colonialism

READING WEEK (Feb 19 – 23)**Week 7. Feb 27th and March 1st
COLONIAL METHODS AND EFFECTS**

1. Colonial Policies
2. Effects of colonialism

Reading:

Excerpt by Arthur Manuel. 2017. The Reconciliation Manifesto, Recovering the Land, Rebuilding the Economy: In Canada, white supremacy is the law of the land.

<https://nowtoronto.com/news/white-supremacy-is-the-law-of-the-land/>

Justice, D.H. 2017. All Mouth and No Ears: Settlers with opinions. The Conversation. September 19, 2017. <http://theconversation.com/all-mouth-and-no-ears-settlers-with-opinions-83338>

Week 8. March 6th and 8th**RECOGNITION OF INDIGENOUS VALUE**

1. RCNE(1985), RCAP(1996), TRC(2015)
2. Call for ATK in Ontario

Week 9 March 13th and 15th**THE VIEW FROM HOME**

1. Knowledge production and a sense of place (Dr. Rob Stewart)
2. Connection and a sense of place

Week 10 March 20th and 22nd**WHO'S ROCK IS THIS?**

1. Mining development in Indigenous territories or Grassy Narrows Hg issues
2. Treaty 5, Favourable Lake gold mine (1927) and Frontier Lithium (present)

ASSIGNMENT 2 Due**Week 11 March 27th and 29th****PLANNING TOGETHER AND BEYOND**

1. Far North planning
2. What happens after a plan?

Week 12 April 3rd and 5th**PULLING IT ALL TOGETHER**

1. Indigenous land connection, knowledge and well-being
2. Review

STUDENT EVALUATION:

COURSE MARKING SCHEME		DEADLINE	MARK
Assignment 1: Why do we need Science?	Short reflection on the need and power of science to solve issues	Feb 1, 2018	25%
Group Project (Assignment 2)	Non-linear Exploration – YouTube Tour	March 22, 2018	35%
Final Exam	Multiple choice and 1 long answer	April, 2018	40%

Assignment 1: Why do we need science?

Pick an issue or opportunity facing the human/environment relationship and explain the role of science. How has science helped solve, or address the issue/opportunity in terms of sustainability? Who has made the final decision on a course of action and were the decision makers influenced by the science experts?

The assignment is to be submitted to D2L by February 1st.

No more than 1500 words of content. (4-6 pages double-spaced Arial 12 Font)

References properly cited – not included in the word count.

Assignment 2: Non-linear Learning – YouTube Tour

This assignment will be submitted to D2L making sure all group members are listed. It is due March 22nd.

This is a group project. You will be working in groups of no more than five people. The project will consist of watching and discussing YouTube videos regarding traditional knowledge. You will be required to document the links to the videos and the geographic location the video refers to. Feel free to use the suggested videos that show on the YouTube site or start a new search (please document your new search). You will list the major take home points of your discussions for each video. Summarize your discussion in a big picture conclusion. The big picture question is how does traditional knowledge fit into a modern context?

- Are there aspects that Indigenous knowledge covers that is missing in our everyday workings in/with the environment? What are they?
- What are the similarities found in Traditional Knowledge from around the world?
 - Values and Ethics
 - Ways of seeing
 - Ways of doing
- Can/should traditional knowledge be used to change the world?

Start your tour here: <https://www.youtube.com/watch?v=uqhJcimn9XM>
or here: <https://www.youtube.com/watch?v=ml7ft2POIk>

You are free to create your own format. This is meant to be an exploratory project to inspire creative thought. There are no set number of videos to discuss, but you need to gather enough from around the world to draw some conclusions about global Indigenous knowledge.

SOME COURSE SOURCES:

Battell Lowman, E., & Barker, A.J. (2015). *Settler: identity and colonialism in 21st century Canada*. Fernwood Publishing. Winnipeg, Manitoba ; Black Point, Nova Scotia. 145p.

Beddoe, R., Costanza, R., Farley, J., Garza, E., Kent, J., Kubiszewski, I., Martinez, L., McCowen, T., Murphy, K., Myerse, N., Ogden, Z., Stapleton, K., and J. Woodward. Overcoming systemic roadblocks to sustainability: The evolutionary redesign of worldviews, institutions, and technologies. *PNAS* Vol 106(8)2483-2489. www.pnas.org/cgi/doi/10.1073/pnas.0812570106.

Bohensky, E.L. and Y. Maru. 2011. Indigenous knowledge, science and resilience: what have we learned from a decade of international literature on "integration"? *Ecology and Society* 16(4):6.

Cronon, W. 1983. *Changes in the Land: Indians, Colonists and the ecology of New England*. Hill & Wang, New York, NY. 288 pp.

Episknew, J. 2009. *Taking back our spirits: Indigenous literature, public policy, and healing*. University of Manitoba Press. Winnipeg, MB. 248p.

Folke, C, Carpenter, S., Elmqvist, T., Gunderson, L., Holling, C.S. and B. Walker. 2002. Resilience and sustainable development: Building adaptive capacity in a world of transformations. *AMBIO: A Journal of the Human Environment* 31(5):437-440. 2002 DOI: <http://dx.doi.org/10.1579/0044-7447-31.5.437>

Hallowell, A.I. 1960. Ojibwa Ontology, Behavior, and World View. In *Contributions to Anthropology, Selected Papers of A. Irving Hallowell*. University of Chicago Press 1976. 357-390.

Holling, C. S., and G. K. Meffe. 1996. Command and control and the pathology of natural resource management. *Conservation Biology* 10(2):328-337. <http://www.jstor.org/stable/2386849>

Harris, C. 2004. How did colonialism dispossess? Comments from an edge of empire. *Annals of the Assoc. of Geographers* 94(1) 165-182.

- Howitt, R. 2001. *Rethinking Resource Management: Justice, Sustainability and Indigenous Peoples*. Routledge, London, New York
- Houde, N. 2007. The six faces of traditional ecological knowledge: challenges and opportunities for Canadian co-management arrangements. *Ecology and Society* 12(2):34.
<http://www.ecologyandsociety.org/vol12/iss2/art34>
- The International Institute for Sustainable Development (IISD), 2012. What is Sustainable Development? Environmental, economic and social well-being for today and tomorrow. <http://www.iisd.org/sd/#one> , accessed Feb 8, 2013.
- Loomis, T.M. 2000. Indigenous populations and sustainable development: Building on Indigenous approaches to holistic, self-determined development. *World Development* 28(5):893–910.
- Macklem, P. 1997. The impact of Treaty 9 on natural resource development in northern Ontario. Pp. 97-134 in Asch, M. (ed.) *Aboriginal and Treaty Rights in Canada: Essays on Law, Equity, and Respect for Difference*. UBC Press, Vancouver, BC, published in association with the Centre for Constitutional Studies, University of Alberta, 1997.
- Maffi, L. 2005. Linguistic, Cultural, and Biological Diversity. *Annu. Rev. Anthropol.* 29:599–617.
<http://wiki.bioculturaldiversity.eu/wp-content/uploads/2010/04/Maffi-2005-Linguistic-Cultural-and-Biological-Diversity.pdf>
- Malcolm, D.G. 2010. Speaking plainly about research, governance and policy for sustainable living. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health* 8(1):171–184.
- Natcher, D.C, S. Davis and C.G Hickey C. 2005. Co-management: Managing relationships, not resources. *Hum. Organ.* 64:240-250.
- Newhouse, D. 2016. Using our good minds to foster reconciliation: A story of optimism. *Canadian Review of Sociology.* 53(4):482–487.
- Ontario Ministry of Natural Resources and Forestry (OMNRF). 2014. Land use planning process in the Far North: The process for developing community based land use plans in the Far North of Ontario.
<https://www.ontario.ca/rural-and-north/land-use-planning-process-far-north> . Accessed October 1, 2014.
- Pikangikum First Nation and OMNR. 2006. Keeping the Land Cheekahnahwaydahmungk Keetahkeemeenaan: A land use strategy. <https://whitefeatherforest.ca/wp-content/uploads/2008/08/land-use-strategy.pdf>. Accessed Sept. 12, 2016
- Rogers, E.S. and M.B. Black. 1976. Subsistence strategy in the fish and hare period, Northern Ontario: The Weagamow Ojibwa, 1880-1920. *J. Anthro. Res.* 32(1):1-43.
- Simpson, L. 2011. *Dancing on Our Turtle's Back: Stories of Nishnaabeg Re-Creation, Resurgence and a New Emergence*. Arbeiter Ring Publishing, Winnipeg, MB.
- Smith, L.T. (2012). *Decolonizing Methodologies: Research and Indigenous peoples*. Second edition. Zed Books, London, UK. 240 pp.