

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

Schedule: Lectures 3 hours per week
 Tuesday 11:30 – 1:30 & Thursday 11:30- 1:00
 ATAC 1001

Instructor: Mr. Dan Duckert, Department of Geography & Faculty of Natural Resources Management
drducker@lakeheadu.ca 630 9172 (text or email for appointment)
 Office: BB1005c – I will be available in the 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 study examples	<ul style="list-style-type: none"> • Discuss some of the major challenges of development and the environment through a local lens.

COURSE SCHEDULE: Guest Speaker dated need to be confirmed**Week 1. Jan 8th-10th,**
GROUNDING OURSELVES

1. Course Introduction
2. What is knowledge and the Environment?

Week 2. Jan 15th, 17th,
Sense of Place (10% activity – 2 classes-5%)

1. Home
2. Dispossession

Week 3. Jan 22nd – 24th,
VALUES AND ETHICS

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

Week 4. Jan 29th - 31st
IT IS JUST THE WAY THE WORLD WORKS

1. Power, Trust and Governance
2. Scenario Analysis (5%)

Week 5. Feb 5th & Feb 7th
HAVE I GOT A STORY FOR YOU!

1. The Far North and Climate Change (Mr. Brandon MacLeod, Journalists for Human Rights) (5%)

Reading:

MacLeod, B. and P. Chookomoolin. 2018. The Paradox of the North: A Way Of Life, Climate Change, And Human Rights. Muskrat Magazine. http://muskratmagazine.com/the-paradox-of-the-north-a-way-of-life-climate-change-and-human-rights/?fbclid=IwAR3xznJNHBK_R4uNVXLZApucwWVaGOJ3BWG2v1VXMzJz4GDtoxJWU9IYRDM

2. Power of Story Telling

ASSIGNMENT 1 DUE**Week 6. Feb 12th & Feb 14th**
MATH AND TECHNOLOGY MAKE GOOD WORKERS – HISTORY MAKES GOOD CITIZENS.

1. Enlightenment
2. Colonialism

READING WEEK (Feb 18 – 22)**Week 7. Feb 26th – 28th**
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 5th and 7th

RECOGNITION OF INDIGENOUS VALUE

1. Grassy Narrows (Michael Gluck Ontario Ministry of the Environment, Conservation and Parks) (5%)
2. RCNE(1985), RCAP(1996), TRC(2015)

Week 9 March 12th and 14th

THE VIEW FROM HOME

1. Education opportunities (Nicole McKay, Keewaytinook Okimakanak Land-based Education) (5%)
2. Teaching and Living in the Far North (Claude Camirand, Conseil scolaire de district catholique des Aurores boréales) (5%)

Week 10 March 19th and 21nd

WHO'S ROCK IS THIS?

1. Treaty 5, Favourable Lake gold mine (1927) and Frontier Lithium (present) (Mr. Rob Purden MNM) (5%)
2. Panel Discussion – Issues and Opportunities – Donald Meekis, Rob Stewart and Dan Duckert

Week 11 March 26th and 28th

PLANNING TOGETHER AND BEYOND

1. Far North planning
2. Connection and a sense of place – Power of mapping

Week 12 April 2nd and 4th

PULLING IT ALL TOGETHER

1. Indigenous land connection, knowledge and well-being

Reading:

Alfred, T. 2018. It's all about the Land. In P. McFarlane & N. Schabus (ed), Whose land is it Anyway? A Decolonization Manual. P10-13.

https://fpse.ca/sites/default/files/news_files/Decolonization%20Handbook.pdf

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 7, 2018	20%
In Class Work	Various Activities –	See schedule	40%
Final Exam	Multiple choice / True False / fill in the blank	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 7th.
No more than 1500 words of content. (4-6 pages double-spaced Arial 12 Font)
References properly cited (use your department standards) – not included in the word count.

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.
- Episkenew, 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 Dan Duckert*

- 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.