COURSE SYLLABUS

GEOG/ENST 3022: Environmental and Natural Resources

Carleton University

Fall Semester, 2014

Professor: Dr. Nick Novakowski

Course Time and Location: Tuesdays, 14:35-17:25 in Southam Hall, Room 518

Office and Office Hours: Room B340 in the Loeb Building starting at 17:45 on Tuesday.

TAs: The TAs will also be available and their office hours are forthcoming.

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COURSE DESCRIPTION:

In this course, we address the description and explanation of fundamentals and theory to environmental and natural resources. This includes issues related to the extraction, exploitation, planning and management of resources. A worldview regarding resources is both context-specific and individual-specific. We will select out the specifics of both. The interface of resources with human systems (e.g., economic growth, city-building, politics) will always be central to the discussion. But, an underlying narrative is how the control of population growth and the genetic engineering of biota (including humans) can buy us time until the planet sorts out both our own preponderance for more. While the scope of the course will be international, the essential Canadian resource debates represent the core: agriculture, the fishery, forestry, mining (diamonds and gold), petroleum (oil and natural gas, plus ancillary issues such as fracking and pipelines), soil and water. The approach of the course, meanwhile, is inter-disciplinary, and draws upon the geographic sub-disciplines of planning, management, environmental assessment, etc. to flesh out the concerns and debates. This permits the course to entertain how societies nest and endure within the biosphere.

TEXTBOOK:

There is no textbook for the course. Readings are noted in the modules below.

STUDENT EVALUATION:

1. Mini-assignment. 10%. Due: September 30th. Worldviews and personal resource management: does your lifestyle demonstrate planetary management, stewardship or environmental wisdom? Or, something else. Explore. 1000 words.
2. Midterm. 25%. October 21st. Yes, we have class after the midterm.
3. Major assignment. 25%. Due: November 11. As singles or pairs, design an assigned development project that uses the principles and mechanisms of environmental and natural resource management. Remember: resource conservation strategies that work for Canada will be rewarded. Further details are forthcoming on this assignment in late September. 2000 words. Minimum 8 refereed sources.

4. Final exam. 40%. Date: TBA.

Note: on written assignments (but not tests), 1% is deducted for each spelling and grammatical error. Remember that the delivery of ideas (spelling, grammar, style) is every bit as important as the ideas themselves.

**TOPIC MODULES IN SEQUENCE** (the sequence may evolve during the semester):
Seventeen modules will be addressed in the semester. This means that on some afternoons, we will handle more than one module.

On September 1st, 2014, all references listed below were verified as available on the internet or through Carleton University assets. If this changes, sources will be made available at the Reference Desk of the MacOdrum Library.

**Module 1: Introduction to resources.** Points of departure: affluenza, right wing versus left wing; environmental studies as politically-left, and geography as politically-neutral; natural versus environmental resources; renewable versus non-renewable resources; the four traditions of geography. Worldviews on resource use: planetary management, stewardship and environmental wisdom. Planning versus management. Sustainability versus where we are today: the Mickey Mouse Model, the Current Affairs Model, the Sustainability Model, and the Bullseye Model.


**Module 2: The transition.** From integrated watershed management to integrated resource management, regional land-use planning, and ecosystem-based planning and management, to integrated resource and environmental management. Exploration of dynamics, uncertainty and equity issues underpinning environmental and resource issues.

Module 3: Biodiversity. Genetic diversity, species diversity and ecosystem diversity.


Module 4: The Canadian resource debates. Agriculture (wheat, canola oil, mustard, wine, ice wine, ice cider), the fishery, forestry, mining (gold and diamonds), petroleum (oil and natural gas plus fracking), soils and water.


Module 7: Forestry.


Module 8: Mining—diamonds and gold.


**Module 9: Cities.** How should we manage resources in cities? Planning versus management again. Compact city form, urban agriculture. We manage resources in the resource platforms, but also in cities. Cities are the laboratories for land resource planning and management. Case studies on how to plan communities for more efficient and effective resource use.


**Module 10: More case studies on how to plan communities for more sustainable resource use.** Using local resource management objectives to solve global concerns. Solving things at local level.

**Module 11: How are finished resources organized and distributed?** Mall design.

**Module 12: Petroleum.** The ultimate Canadian natural resource debate.


Supplemental reading (optional):


Fox, J. (2013). *Gasland part II.* Video. We’ll watch excerpts in class.

Module 14: The policy instruments for natural resource management. Direct regulation of the environment; tradable permits; taxes; subsidies, deposit-refund schemes, and refunded emissions payments; property rights, legal instruments, and informational policies; national policy and planning; and, for roads, environmental road pricing, regulations for fuel efficiency and fuel quality and vehicle standards.


Supplemental reading (optional):


Module 15: Alternative energy. Wind, concentrated solar, solar photovoltaics, geothermal, hydroelectric, tidal, wave, nuclear.


Module 16: Ecological footprinting. The phantom planet hypothesis. Strengths and weaknesses.


Module 17: Activism. How to be an environmental activist. When resource planning and management have failed, then activism may be all that remains. This is a handbook on environmental activism.

PLAGIARISM:

Remember that plagiarism is an offence at Carleton University.

Plagiarism is a violation of the academic code of conduct: (http://www4.carleton.ca/calendars//ugrad/current/regulations/acadregsuniv14.html).

Plagiarism is a serious offence which cannot be resolved directly with the course instructor. Rather, a rigorous investigation is conducted by the Office of the Faculty Dean, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. If you think you might be violating the code and want to ensure you don’t end up being sanctioned, contact your professor or the TA.

The University Senate defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This can include:
• reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source;
• submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
• using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
• using another’s data or research findings without citation;
• failing to acknowledge sources through the use of proper citations when using another’s works and/or failing to use quotation marks; or,
• handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

**ACADEMIC ACCOMMODATION:**

You may need special arrangements to meet your academic requirements during the term because of disability, pregnancy or religious obligations.

Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities (PMC) for a formal evaluation of disability-related needs. Documented disabilities could include but are not limited to mobility/physical impairments, specific Learning Disabilities (LD), psychiatric/psychological disabilities, sensory disabilities, Attention Deficit Hyperactivity Disorder (ADHD), and chronic medical conditions. Registered PMC students are required to contact the PMC, 613-520-6608, every term to ensure that your Instructor receives your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you only require accommodations for your formally scheduled exam(s) in this course, please submit your request for accommodations to PMC as early as possible.

Pregnancy or Religious Obligation: write to your professor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website http://www.carleton.ca/ equity/accommodation/student_guide.html