

NRI 7130 Syllabus: Energy Resources Management and Policy

Instructor:
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Thursday, 1:00 to 4:00
NRI – Rm 320, Sinnott Building
Office Hours: by appointment

Introduction:

Energy is important to the quality of our lives. Modern society is totally dependent on an abundant and uninterrupted supply of energy for living and working. It is imperative to all economic sectors. With energy demand expected to increase significantly in the future what is the environmental impact? Can we minimize climate change? How will we satisfy the enormous energy requirement of modernity in an environmentally friendly way? Is it possible for demand to decline without loss of quality of life through energy efficiency? Could energy supply increase with alternative energies? What are the environmental and social impacts of our energy policy? This class considers these questions and provides some management tools to begin to answer them.

Objectives:

1. To better understand the complexity of energy policy and management.
2. To develop some energy management skills.

Course Format:

This course will profile different energy types and issues to better their utility in solving the energy problem by posing questions and not so much providing answers. Hands on audits and installation of a solar panel will be carried out.

Evaluation:

Four assignments will constitute 100% percent of the course mark: These involve:

- 1) Energy audit including presentation (30%)
- 2) Poster for conference (25%) with 10% based on outline provided two weeks prior.
- 3) Five debates worth 5% each (25%)
- 4) Presentation based on journal paper of your choice (Please get paper approved prior to presentation). (20%)

Course content:

A variety of teaching methods will be used to achieve course objectives including: lectures, class discussions, debates, tours, presentations, readings and group work.

Grading:

Grade	Marks	GPA
A+	≥ 90	4 (4.5)
A	85-89	4.0
B+	80-84	3.5
B	75-79	3.0
C+	70-74	2.5
C	65-69	2.0
D	60-64	1.0
F	>60	0.0

Course Text:

Articles will be available in the photocopy room the week prior to class discussion/debate.

Weeks	Focus	Assignments
September 6	Introduction	
September 13	Debate – Climate change – what does it require of energy policy? Speaker: Shane McKenzie, Green Manitoba (demand-side management/energy audits)	5% Debate
September 19/20	Experimental Lakes Area tour (leaves Wednesday 1:30) – demand and supply (diesel) study.	
September 27	St Leon tour – meet with Algonquin Power	
October 4	Alternative Energies – overview Speaker: Eric Bibeau, Alternative Energy Chair	Energy Audit Assignment due
October 11	Economic and policy analysis of wind energy: Speaker: Rick Halas, Green Manitoba Energy Audit Presentations (groups)	Present Energy Audits to Shane McKenzie and ELA staff for feedback
October 18	Comparing energy policies and pricing for sustainability Speaker: Peter Miller Debate – wind	Send abstract for poster to s_thompson@umanitoba.ca 5% debate Revised energy audit due
October 25	Energy policies and Emissions Training, Speaker: Bill Hamlin - Manitoba Hydro Debate – energy policy	5% debate
November 1	Transportation. Note: Sustainable Transportation PHEV conference on November 1 st /2 nd or Hydrogen	5% debate
November 8	Hydro and alternative energies Speaker: Tom Molinski & Co. – Manitoba Hydro	
November 15	Presentations	Draft poster outline due
November 22	Debate	5% debate
November 29	Presentations	Poster assignment due

Note: Presentations throughout course – please sign up for a date on the topic of your choice – providing the paper to the class the week before that your talk is slated.