Comprised of online lectures with select in-person sessions
Lectures tenatively scheduled for Thursday evenings

NEW!

Ecological Economics Course WI2019

This course aims to develop literacy in ecological economics by increasing the knowledge and understanding of core economic concepts and their role in supporting a green economy.

Students will explore how ecological economics helps to understand and affect economy-environment relationships, with a consideration of sustainability, economic efficiency, and distribution'.

Develop practical skills in the discipline of ecological economics that will realize the following skills and competencies:

- appraising scholarly publications that focus on economy-environment interactions and dependencies;
- applying economic theory to analyze contemporary sustainability-based challenges and to strategize for solutions;
- succinctly communicating theory and solutions to an interdisciplinary audience, in writing and verbally.

About the Instructor

Eric Miller is a consulting economist and contract faculty at York University. He has experience serving the Ontario and Federal governments as a public servant and has helped hundreds of students through his teaching of both graduate and undergraduate students at York University and Queen's University.

Please contact azohar@trentu.ca for more information

TRENT UNIVERSITY

Proposed W2019 Ecological Economics course for the Sustainability Studies MA Program
To be offered by Eric Miller, Ecological Economist based in Hamilton Ontario

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This course will explore how ecological economics helps to understand and affect economy-environment relationships, with a consideration of sustainability, economic efficiency, and distribution.

In this course, you will become skilled at: 1) appraising scholarly publications that focus on economy-environment interactions and dependencies; 2) applying economic theory to analyze contemporary sustainability-based challenges and to strategize for solutions; 3) succinctly communicating theory and solutions to an interdisciplinary audience, in writing and verbally.

Prerequisites

You are not required to have taken any prior economics courses.

You are not required to be skilled in mathematics.

Technological requirements

You are required to have a webcam and microphone if these are not already built into your computer. You will need a good quality internet connection that supports your participation in online meetings.

Format of the course and weekly meetings:

Weekly course meetings of 2.5 hours will be held online using free Zoom videoconference software, except one in-person meeting near the start of the term. You can login from wherever you prefer.

Before each course meeting, you will watch a lecture video that I produced within the last year. The video will introduce the topic and help you to engage with the required readings and issue. Each lecture video of 30 minutes is chaptered into 4 or 5 segments, depending on the topic. Each segment supports one statement, and all statements support one key thesis about the topic (all of these are included in this document, starting on the next page). The video can be watched from start to finish, or from any segment. Each video is accompanied by a PDF file of slides, which includes a list of references cited.

Since there will be no live lecture, each weekly course meeting will be highly interactive, with student-led appraisals of the required academic readings and video lecture.

All video lectures, and direct links to all the required readings, will be provided through a password-protected interactive website that includes an automated system to reserve online office-hours.

Proposed topics that will each by supported by two required academic readings

T1: Introduction to the economics of environmental issues

Economists vary in their approach to environmental issues

- Conventional economics tends to be disinterested in environmental issues
- The environment matters to Natural Resource Economics and Environmental Economics
- Ecological Economics is interested in efficiency, sustainability and distribution
- Various ideological perspectives exist within the economics community

T2: Markets

Markets can work for, and against, the environment

- A market is a way of facilitating exchange
- Free markets can fail, especially when they have free access to nature
- Some environmental policies work better than others to manage failures
- Various forms of governance can manage common-pool resources

Issue: Managing harvests in an open-access community fishery

T3: Natural capital and ecosystem services

Ecosystem services are non-market benefits from nature

- Nature provides humans with Ecosystem Goods and unpriced Ecosystem Services
- Many contexts can be informed by the economic valuation of ecosystem services
- Ecologists categorize services as provisioning, regulating, supporting, and cultural
- Natural Resource Economists value the Total of Use and Passive-Use values
- Ecological Economists value bundles of services and consider sustainability

Issue: Toronto's tree canopy is below target

T4: Non-market valuation

Many methods can be used to estimate non-market values

- Non-market values can be *derived, revealed, or stated* using various methods
- Values can be estimated by transferring results from another context
- Values can inform decisions, even with limited and imperfect information
- Example: Valuation informed the end of coal-fired electricity generation
- Example: Valuation could inform municipal stormwater fees

Issue: Estimating the economic damages from the 2014 Mount Polley tailings dam failure

T5: Directing markets

Markets can be directed to affect behaviour

- Behaviour is revealed by exchange in a market context
- Behaviour can be purposefully affected through markets
- Eco-efficient improvements can generate rebound effects
- There are caveats to affecting human behaviour through markets

Issue: Escaping the lock-in of the internal combustion engine

T6: Informing public decisions

Economic information is used in public decision-making

- Many economic frameworks can inform public decisions
- Economists tend to assume the use of Benefit Cost Analysis
- Governments tend to consider benefits, costs, and distribution
- Stakeholders tend to position impacts as if they're economic benefits
- Empirical models are used to forecast economic changes

Issue: Responding to requests for new public infrastructure to enable "Ring of Fire" mining

T7: Discounting

Decisions involve reconciling trade-offs over time

- Discounting is used to calculate the present value of future values
- Conventional discounting is theorized by human behaviour and market reasoning
- Many economists critique conventional discounting
- Canadian government's approach warrants a re-think

Issue: Estimating the present value of the costs of managing Ontario's long-term nuclear waste

T8: Human behaviour

Economists have competing perspectives about human

- Conventional economists assume that humans are only self-interested
- Unconventional economists recognize that humans are self- and other-regarding
- Perspectives are often simplified as *H economicus* versus *H reciprocans*
- Experiments can evaluate the predictions of economic theory
- Environmental policy should be mindful of behavioural insights

Issue: Minimizing single-occupancy automobile vehicle trips

T9: Sustainability and/or growth

Sustainability involves considering human, natural, and built capital

- Economic measures of sustainability relate to capital
- Balance Sheets measure capital to inform Net Worth
- Weak sustainability measures changes in all capital
- Strong sustainability measures the supply and use of natural capital
- Economists debate the potential and appeal of further growth

Issue: Assessing the sustainability of the Ontario economy

T10: Measures of performance and wellbeing

Economic measures of wellbeing are evolving

- GDP is Gross Domestic Product. It has uses and limitations.
- Life Satisfaction data is challenging economic conventions
- Distribution matters and can be measured
- Ideas abound for redefining economic progress

Issue: Developing wellbeing measures for Canada

T11: Global trade

Environmental implications of cross-border trade are complicated

- Comparative Advantage motivates international trade
- Trading relationships are affected by global financial issues
- The relationship between development and environmental quality is disputed
- International trade could be retooled to promote global environmentalism

Issue: Trade between countries with different degrees of cost internalization

T12: (Un)Employment

The management of jobs and unemployment is contested

- Unemployment is an economic and environmental problem
- Neoclassicals assume that market economies tend towards full employment
- Keynesians assume that unemployment exists in money-using economies
- Options abound for greening income and employment policies

Issue: Responding to involuntary unemployment in Canada