FACULTY OF ENVIRONMENTAL STUDIES
York University

COURSE SYLLABUS AND READING LIST
Winter Term 2017

Course: Ecological Economics: Concepts and Methods

Description

This course introduces several quantitative methods that are especially useful in ecological economics and gives students practice working with them. The course also provides students with an opportunity to critically review and comment a draft of the second edition of Managing without Growth, a work in progress of the course director. The course will be delivered from York University where it is also being made available to graduate students in the Faculty of Environmental Studies.

Course Director

Professor Peter A. Victor
HNES 211
Course consultation hours: Friday 10.00am – 11.00am or as posted on the Course Director's office door.
peter@pvictor.com (put 6115/E4A Course in the subject line)

Time and Location

Wednesday 9.30am to 12.20pm Stedman 120E

Purpose and Objectives of the Course

This course has two inter-related components. The first will provide students with an opportunity to critically review and comment on drafts of the second edition of *Managing Without Growth: Slower by Design not Disaster* written by the Course Director. This book, first published in 2008, covers many of the most fundamental issues in ecological economics. The second edition will be published in 2018. It will include recent work in ecological economics as well as earlier foundational concepts and ideas. The second component of the course will focus on empirical methods used in ecological economics, noting their underlying assumptions, strengths and limitations. The objective is to equip students with enough knowledge and practice so that they can use these methods in their own research and better appreciate their use by others.

The specific objectives of the course include:

1. To critically review drafts of the 2nd edition of *Managing Without Growth: Slower by Design not Disaster.*

2. To appreciate the debates and data underlying the continued commitment of advanced economies to the pursuit economic growth.
3. To provide exposure to and practice with several empirical methods used in ecological economics.
4. To gain experience in leading, participating in and reporting on group discussions.

Ecological Economics is an interdisciplinary field that demands consideration of a wide range of ideas, so the skills needed to welcome and integrate participation from all are important to becoming an effective ecological economist. During class discussions and group work, everyone is encouraged to participate; it is also the responsibility of each student to ensure that each of their peers has a voice.

Organization of the Course

Students are expected to attend every class. If you have to miss a class you are expected to notify the course director in advance by email.

a. Pre-recorded presentations by the Course Director on draft revisions to *Managing Without Growth: Slower by Design not Disaster* (available on class Moodle site, to be watched prior to class).

b. Seminars led by students commenting on and critiquing the draft 2nd edition of *Managing Without Growth: Slower by Design not Disaster.*

c. Presentations by the Course Director on methods in ecological economics.

d. Methods practice during and after class. The specific tasks will be available on Moodle as the term progresses.

Each student will take turns as the **facilitator** and **rapporteur** for one or more seminars, keep a **reading log** and write a **term paper proposal** and **term paper** employing one or more of the methods covered in the course (see below for more details).

Seminars
The seminars will discuss and comment on the strengths and weaknesses of the draft chapter(s) that will be available on the class Moodle site. Students should identify what's in the draft chapters and shouldn't be and what's not there and should to would improve the chapter(s). Some documents not necessarily referred to in the draft chapters will be available on the course Moodle site (or via some other means) for students to consult.

Students will take turns in acting as **Facilitators** and **Rapporteurs** for the seminars. **Rapporteurs** will submit their notes on the template provided on Moodle to the Course Director in a Word file within **3** days of the seminar.

Reading log
Students will keep an up to date reading log throughout the course. The log should be your notes on the reading material in your own chosen format e.g. prose, bullet points. Include the citation and date read for each item. Your completed reading log should be submitted by **3 April** in a Word file.

Term paper
Students will write a term paper using one or more of the empirical methods covered in the course.

a. The **proposal** (6 pages maximum excluding references due electronically in Word **1st March** should outline the issue to be addressed in the paper, the method(s) and data sources to be employed, and expected findings.

b. The **paper** (5,000 words maximum excluding references due **5th April** electronically in Word). The paper should be written, structured and formatted according to the requirements for publication in *Ecological Economics.*

Draft paper presentation
Each presentation should be limited to **10 minutes.** Slides can be used but are not required.

Use of electronic equipment in class

The use of electronic equipment in class can be distracting to other students and to the Course Director. Such use should be limited to activities directly relevant to the class e.g. referring to papers that are under discussion, taking notes and working on methods. All cell phones must be switched off.

Required Readings (available on the class Moodle website)

Victor, P. *Managing without Growth. Slower by Design, not Disaster*, draft 2nd edition (referred to as MWG2 below) – chapters assigned for each class.

Ruth, M. and Hannon, B. (2012) *Modeling Dynamic Economic Systems* 2nd edition, Springer (referred to as R & H below) – available from the university library in print and electronic versions

Additional required readings are shown for each class. They are all available over the internet.

Suggested Reading:

Ecological Economics journal (available online through the university library)

Organizations of interest:

The Canadian Society for Ecological Economics: http://www.cansee.org
The Centre for the Advancement of a Steady-State Economy: http://steadystate.org
The Institute for New Economic Thinking: http://ineteconomics.org
The New Economics Foundation: http://www.neweconomics.org
The New Economy Coalition: http://neweconomy.net/new-economy-coalition
United States Society for Ecological Economics: http://www.ussee.org
World Economics Association: http://www.worldeconomicsassociation.org

Student Evaluation

Student evaluations will be based notionally as follows:

Course component	Due Date	Notional Weight (%)
Seminar rapporteuring	Each week from 2nd week onwards	10
Reading log	3 April	15
Term paper proposal	1 March	10
Draft paper presentations	29 March, 5 April	20
Term paper	19 April	45

Relation to Other Courses

This course is related to other courses dealing with: economics, ecology, environmental policy, resources policy and management, conservation, energy, planning and sustainability.

Schedule of Topics and Readings by week

Class 1 January 11

Introductions
Review of course objectives, content and structure
Assignment of seminar leaders

In-class Presentation: Historical roots of ecological economics

In-class Presentation: An overview of methods in ecological economics

Readings:
Giovanni, E. (2008) *Understanding Economic Statistics. An OECD Perspective,* chapter 1 OECD

Methods Practice: Exploration of Data sources

Class 2 January 18

Pre-recorded Presentation: The Idea of Economic Growth, Why Manage without Growth?

Seminar: MWG2 chapters 1 and 2

Lessons learned from previous methods practice

In-class Presentation: The System of National Accounts

Readings:
Giovanni, E. (2008) *Understanding Economic Statistics. An OECD Perspective,* OECD, chapter 2, sections 2.1-2.4

Pritzker, P., Arnold, K. Moyer, B.C., (Dec 2015), *Measuring the Economy: A Primer on GDP and the National Income and Product Accounts,* US Bureau of Economic Analysis

Methods Practice: Measuring Economic Growth

Class 3 January 25

Pre-recorded Presentation: Systems, information and prices, Pricing Nature

Seminar: MWG2 chapters 3 and 4

Lessons learned from previous methods practice

In-class Presentation: System of Environmental-Economic Accounting (SEEA)

Readings:

UN (2012) *System of Environmental-Economic Accounting 2012 - Central Framework*, chapter II

Methods Practice: A Water Asset Account

Class 4 February 1

Pre-recorded Presentation: Limits to Growth **-** Sources, Sinks and Services

Seminar: MWG2 chapters 5 and 6

Lessons learned from previous methods practice

In-class Presentation: Input-output Analysis

Readings:

Methods Practice: Input-output Analysis

Class 5 February 8

Pre-recorded Presentation: Limits to Growth - Synthesis

Seminar: MWG2 chapter 7

Lessons learned from previous methods practice

In-class Presentation: Environmentally Extended Input-Output Analysis

Readings:

Methods Practice: Environmentally Extended Input-Output Analysis

---

Class 6 February 15

Pre-recorded Presentation: Scale, Composition and Technology

Seminar: MWG2 chapter 8

Lessons learned from previous methods practice

In-class Presentation: Introduction to Systems Dynamics - The World System

Readings: R & H chapters 1 and 2

Methods Practice:
-Stella on-line tutorials 1, 2, 3
http://www.iseesystems.com/community/downloads/tutorials/ModelBuilding.aspx
-Running World 3 (see Moodle for details)

February 22 no class (Reading Week)

Class 7 March 1

Pre-recorded Presentation: Economic Growth and Happiness, The Disappointments of Economic Growth

Seminar: MWG2 chapters 9 and 10

Lessons learned from previous methods practice

In-class Presentation: Creating Simple Systems Models - part 1 (Stella)

Readings: R & H chapter 3

Methods Practice: Stella on-line tutorials 4,5,6
http://www.iseesystems.com/community/downloads/tutorials/ModelBuilding.aspx

---

Class 8 March 8

Pre-recorded Presentation: Managing without Growth in Advanced Economies

Seminar: MWG2 chapter 11

Lessons learned from previous methods practice

In-class Presentation: Creating Simple Systems Models - part 2 (Stella)

Readings: R & H chapter 4

Methods Practice: Fishbanks part 1
See Moodle for details

Class 9 March 15

Pre-recorded Presentation: Policies for Managing without Growth, System Change **-** Needs and Possibilities

Seminar: MWG2 chapters 12,13

Lessons learned from previous methods practice

In-class Presentation: What I learned from your comments on MWG2

Readings: R & H chapters 5 and 6

Methods Practice: Fishbanks part 2
See Moodle for details

Class 10 March 22

Draft paper presentations

Class 11 March 29

Draft paper presentations

Class 12 April 5

Draft paper presentations