

Evolutionary Economics (ECO 370, Section 1)

MWF: 3:10 – 4:00pm, 201 Winslow Hall

Instructor: Tim Waring (timothy.waring@maine.edu)
Website: Google Classroom (use your maine.edu account, code: [ih0dan](#))
Office: Winslow Hall, Suite 200
Office Hours: Mon 4-5pm or by appointment

Course Overview

Evolutionary economics takes advantage of the science on the evolution of the human species, human behavior, and human institutions. Evolutionary economics applies the principles of variation, selection and retention to understand the dynamic nature of economic systems, filling some gaps in economics and other social sciences. This course will cover historical evolutionary perspectives on economics and current evolutionary research in the economics and the social sciences. Student will be introduced to the analytical tools of evolutionary game theory and agent-based modeling. Students will practice building evolutionary accounts of economic systems, characterizing evolutionary forces acting in economic systems, and suggesting evolutionary interventions to improve outcomes, and will complete a major project on a system of their choosing. *This class is appropriate for students outside of economics as well as economics majors. There are no prerequisites.*

Learning Objectives

- Detail the requirements for evolution by natural selection
- List the features distinguishing cultural from genetic evolution
- Identify sources of variation, selection and transmission in economic systems
- Develop an evolutionary accounting of an economic system of your choice
- Identify and avoid evolutionary (and economic) storytelling
- Estimate the dominant level of selection in your economic system
- Diagnose economic systems, and prescribe evolutionary interventions
- Explore agent-based models and evolutionary game theory as analytical tools
- Detail the benefits of an evolutionary accounting of economic phenomena

Course Materials

- Hodgson, G. M., & Knudsen, T. (2010). *Darwin's Conjecture: The Search for General Principles of Social and Economic Evolution*. Chicago; London: University Of Chicago Press.
- Frank, R. H. (2012). *The Darwin Economy: Liberty, Competition, and the Common Good*. Princeton N.J.: Princeton University Press.
- Journal Articles – I will assign readings from the peer reviewed scientific literature. You will be responsible for accessing these articles using our truly amazing online library resources.

Assignments

0% **Participation**

is required and expected of professional students such as yourselves. All term.

40% **Evolutionary Economic Analysis (a term paper)**

You will describe an economic system in evolutionary terms, diagnose it using evolutionary concepts, and use that understanding to suggest novel interventions. It will include a final paper (~10p single spaced) as well build up exercises. Topic Selection 5%, Complete Draft %10, Final Paper 25%.

20% **Class Communication Project**

As an entire class you will be faced with the difficult challenge of explaining the concepts of evolutionary economics to two visiting non-specialists, one evolutionary biologist and one resource economist. This challenge is great, and it will require the efforts of the entire class. The non-specialists will judge how well you convinced them of the utility of the evolutionary approach.

15% **Précis (3)**

Expert summaries of the one of our weekly readings

15% **Practices (4)**

Short papers to practice describing economic systems in evolutionary terms.

10% **Methods Homework**

Modeling exercises using agent based modeling software NetLogo.

Précis

A précis is an expert summary. You will write five précis of the articles or book chapters assigned. These are due by 5:00pm Fridays unless otherwise specified. Each précis should be at least one page in length (single-spaced, 12-pt Times New Roman). All sources used should be properly cited according to the [Harvard Citation Style](#). I also recommend Zotero (www.zotero.org) or similar tools.

Both précis and Practice analyses are graded on a 0-3 scale. A 3 means that you went above and beyond expectations, a 2 means that your work was good and met expectations, a 1 means that you handed something in, but you are either not grasping the concepts or are not putting forth an acceptable level of effort. If you do not hand in your précis on time, your grade for the assignment will be a 0.

Steps to preparing your précis each week:

1. Find the article using the awesome library resources
2. Write a summary of the article
3. Comment on the relationship to other concepts or readings, add your own opinion
4. Create an appropriately formatted citation at the bottom
5. Compose and submit the Google Doc in Classroom by 5:00pm Friday
6. Be ready to talk about your work in class

Expectations and Guidelines

As college students I expect to be able to treat you as adults, with all of the independence, commitment and responsibility that status entails. Below are some of my expectations for you, as a professional student.

Attendance - please plan to attend all classes, on time or early.

Deadlines - have all assignments submitted by the deadline. I don't have time for late work.

Participation - read the readings, participate in discussions.

Devices - silence and ignore your cellphones, no laptops are allowed unless requested

Originality - promise that all submitted work is entirely your own.

Respect - treat fellow students and the teacher with respect. HELP EACH OTHER OUT.

Class Format

Discussion will be central part of the class. This class is small enough to facilitate very in-depth discussion of the material. I will be able to tell immediately if you have not read the readings for the day. But, I have kept the daily readings to a minimum, literally. There is only one each class day. However, I will also use many other ways of engaging the concepts and skills. It will be lively, I can guarantee it!

Important Dates

<u>Last Day to</u>	<u>Date</u>
add classes	Fri-4-Sep
drop classes	Sun-13-Sep
transcript drop	Thu-1-Oct
drop without 'F'	Fri-13-Nov

Academic Honesty:

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Students with disabilities:

If you have a disability for which you may be requesting an accommodation, please contact Disabilities Services, 121 East Annex, 581-2319, as early as possible in the term.

Course Disruption:

In the event of an extended disruption of normal classroom activities, the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Sexual Discrimination:

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, your teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

Inclusive or non-sexist language:

The University of Maine's non-sexist language policy may be viewed at:

<http://www.umaine.edu/WIC/both/language.htm>.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources: For *confidential resources on campus*: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000. For *confidential resources off campus*: Rape Response Services: 1-800-310-0000 or Spruce Run: 1-800-863-9909. For *support services on campus*: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>