

W&FCON 697Z Ecological Economics and Sustainability

Spring 2009

Meeting: Wednesday 10:10 to 1:15 in Rm. 306 Holdsworth

Course teacher: Dr. Timothy Randhir, Department of Natural Resources Conservation

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Course website: <http://spark.oit.umass.edu/>

Course Objectives: (i) to study advance topics in ecological economics and sustainability; and (ii) to specialize in selected topics through in-depth review and publishable reporting.

Course policy: Students can contact Prof. Randhir for any help through walk-ins, email, or phone call. All students are expected to maintain full attendance. Students are required to inform professor of any absence prior to that class. Excessive absence (more than one class) without proper reason AND prior permission from instructor will result in a loss in grade. All students are expected to complete all readings and writings on time. Late submissions are not encouraged and will affect the grade. The course will follow policies of UMass regarding academic dishonesty (http://www.umass.edu/dean_students/codeofconduct/acadhonesty/).

| <i>Week</i> | <i>Tentative Topics</i> | <i>Remarks</i> |
|-------------|---|----------------|
| 1/28 | Introduction and curriculum plan | |
| 2/4 | Principles of Ecological Economics. | |
| 2/11 | Sustainability concept and sustainable development | |
| 2/18 | Biodiversity and limits to growth | Chris |
| 2/25 | Climate change and earth system | Debbie |
| 3/4 | Globalization, international trade, treaties, and policies. | Dennis |
| 3/11 | Valuation of natural capital, values, and choices | Keith |
| 3/25 | Biophysical economics, energy, thermo dynamics | Dennis |
| 4/1 | Managing commons and human capital | Debbie |
| 4/8 | Incentives, institutions, efficiency, and equity | Simon |
| 4/15 | Landscape dynamics and modeling complexity | Chris |
| 4/22 | Risk and uncertainty | |
| 4/29 | Sustainable financing, ethics, and environmental justice | Simon |
| 5/6 | Environmental accounting, comparative policy analysis | Keith |
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Evaluation:

The final grades will be calculated based on preparation and presentation of the weekly topic (40%) and a review paper (60%).

Procedure for discussing weekly topics:

Each student will research the topic from leading journals in the field (See the journal list below). Each student will bring the following to the class: (i) one page of highlights on the current topic based on their research. For this, a list of ideas and concepts will suffice; (ii) One-page summary of a journal article that is interesting and deals at an advance level; and (iii) Copies of the article for others in the class. PDFs should also be posted to the course website. To avoid redundancy, please check choice of papers selected by others on the website.

Each student will be given 10 minutes to cover their highlights. The leader(s) (listed above) will facilitate the discussions, take notes and prepare a master list of concepts (as a Word document). The leader will also collect material (above three items) from each student and prepare a master report on each topic after the class. Please get permission from the professor prior to a class before missing any preparation. Students are expected to upload all materials to the course website.

Procedure for Review Paper:

Student will identify and develop a review paper on a major topic that is not researched well in literature. Students are encouraged to discuss with the professor on a suitable topic, research, and writing process. Please look at some typical review papers from journals. A typical review paper involves classifying major areas, conceptualizing, evaluating needs, and presenting it well. This involves extensive work on compiling large amounts of literature. Each week the group needs to report on the progress of the review in class. A draft for publication is due on the last day of class. The paper should be in an acceptable and publishable form in a top-tier journal (See suggested journals below).

Suggested Journals:

Ecological Economics, Journal of Env. Economics and Management, International Journal of Ecological Economics and Statistics, Conservation Biology, American Economics Review, Climatic Change, American Journal of Agricultural Economics, Science, Nature, Water Resources Research, Advances in Ecological Research, Annual Review of Ecology, Evolution, and Systematics, Trends in Ecology and Evolution, Ecology, Ecological Monographs, Ecological Applications, and Frontiers in Ecology and the Environment.