

BUS 690: The Economics of Ecosystems and Biodiversity
Colorado State University
Fall 2015
Dr. Andy Seidl, professor
36 Rockwell Hall, 1-2:15 pm, MW

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Description:

Economic theories and analytical frameworks are developed and applied to the use, protection and management of the natural environment.

Texts (copies will be put on reserve and/or pdfs provided where admissible):

Core (a reader of focal chapters will be made available):

Field, B. and M. Field. 2013. Environmental Economics: An introduction. 6th Edition. McGraw-Hill. 492 pages. (F&F)

http://www.coursesmart.com/IR/2894093/007781245X?_hdv=6.8

Field, B.C. 2008. Natural resource economics: An introduction, 2nd Edition. Waveland Press. 477 pp. http://www.coursesmart.com/IR/2894093/9781577665311?_hdv=6.8 (FBC)

Supplemental:

TEEB. 2012. Bishop, J, ed. The Economics of Ecosystems and Biodiversity for Business and Enterprise. Earthscan Routledge Publishers. 269 pages. (free download available) www.teebweb.org

TEEB. 2013. TEEB for Country Studies Guidebook. http://www.teebtest.org/wp-content/uploads/2013/06/TEEB_GuidanceManual_2013_1.0.pdf

Buncle, A., Daigneault, A., Holland, P., Fink, A., Hook, S., and M. Manley. 2013. Cost-benefit analysis for natural resource management in the Pacific: A guide. SPREP/SPC/Landcare Research and GIZ. 52 pp. http://www.undp-alm.org/sites/default/files/downloads/cost-benefit_analysis_for_natural_resource_management_in_the_pacific-a_guide.pdf

BIOFIN UNDP-GEF: <http://www.biodiversityfinance.org/>

WAVES World Bank: <https://www.wavespartnership.org/en>

NBSAP Forum: <http://nbsapforum.net/>

Objectives:

The successful student will be able to...

- Apply benefit cost analysis techniques to environmental problems and projects and evaluate their implications for developed as well as developing countries and communities.
- Assess the strengths and weaknesses of economic valuation approaches to inform decision-making.
- Evaluate the implications of a wide range of policy tools to achieve environmental outcomes.

Grading:

The class will be graded in the following manner:

A = >90% B = >80% C = >70% D = >60% F = <60%

Evaluation:

Exam I	30% of total points
Exam II	30% of total points
Final project	30% of total points

Homework 10% of total points

Exams (60% of total grade):

Exams questions will be short answer, and graphical or mathematical illustrations. Information will be taken from the text and from classroom discussion.

Many current issues are complex and require individual evaluation from a number of perspectives. In writing your exams, please restrict yourselves to the economic arguments supporting your position.

Homework (40% of total grade):

There will be two types of homework:

- 1) Graphical and/or mathematical illustrations of the core themes covered in the course using real situations found in newspapers, magazines, journal articles and/or agency or business reports. (2 @ 5% each)
- 2) A group project (30%). The class will have the opportunity to explore more completely the development progress and challenges facing emerging national economies. Each group of approximately 4 students each will provide an overview and analysis of one of these countries (Belize, Botswana, Fiji, Georgia, Mexico, Philippines, Vietnam) and report their findings to the rest of the class. Each week of the course should provide insights into what might make for an informative report. The report should generally provide:
 - a. An overview of the political context of the country, its partners, its development perspective, and its role in the global economy.
 - b. A demographic profile and trajectory of the country
 - c. An economic profile and trajectory of the country
 - d. An assessment of the current stocks and flows of important sources of natural capital and the country's National Biodiversity Management Strategy and Action Plan (NBSAP).
 - e. A review of the relevant development indicators over time and relative to peer nations
 - f. A synthesis of the five points above in identifying opportunities and constraints to natural resource based economic development for the country.

A final project report will be no more than 20 pages of 11 pt font, double-spaced text, inclusive of all tables, graphs, bibliographical materials, etc and will comprise 80% of the group grade (assessed by the professor) and the oral and visual (Power Point or Prezi) presentation will be 20% of the group grade (assessed by the class). Individual grades may be adjusted based upon peer assessment of their involvement in the group project and by participation in the peer assessment of the oral presentation.

Schedule (subject to adjustment according to class needs):

Module 1: Frameworks of economic policy and project analysis (5 weeks)

- 8/24 F&F Chapter 6: Frameworks of Analysis
- 8/26 F&F Chapter 7: Benefit-Cost Analysis: Benefits;
- 8/31 F&F Chapter 8: BCA: Costs
- 9/2 F&F Chapter 9: Policy analysis
- 9/9 F&F Chapter 10: Law and property rights

Homework 1: Due

- 9/14 F&F Chapter 11: Regulatory approaches
- 9/16 F&F Chapter 12: Incentive based strategies
- 9/21 F&F Chapter 13: Incentive based strategies
- 9/23 Exam 1

Module 2: Economic models of natural capital use and management (5 weeks)

- 9/28 FBC Chapter 10: Mineral economics

9/30 FBC Chapter 11: Energy economics
10/5 FBC Chapter 12: Forest economics
10/7 FBC Chapter 13: Marine resource economics
10/12 FBC Chapter 14: Land economics

Homework 2: Due

10/14 FBC Chapter 15: Economics of water resources
10/19 FBC Chapter 17: Economics of outdoor recreation
10/21 FBC Chapter 18: Economics of wildlife management
10/26 FBC Chapter 19: Economics of biodiversity protection
10/28 Exam 2

Module 3: The Economics of Ecosystems and Biodiversity: International Projects and Applications (5 weeks)

11/2, 11/4, 11/9, 11/11, 11/16, 11/18, 11/30, 12/2: The TEEB Approach and international efforts to make visible the invisibility of nature (e.g., WAVES, BIOFIN, MACBIO, TEEB for Country Studies, TEEB for Business Enterprise, SEEA, CBA for Pacific)
12/7, 12/9: Final Project presentations