Project Evaluation and Non-market Valuation Methods REM 651 (5)

Course Outline

Instructor:	Duncan Knowler	Office:	TASC1 8427
Term:	2016-1	Office tel.:	778/782-3421
Lectures:	Tu 4:30 PM – 6:20 PM Th 2:30 PM – 4:20 PM	Email:	djk@sfu.ca

Course Objective

Introduces students to topics in the theory and practice of environmental and resource economics with an emphasis on the practical aspects. Three topics are addressed: (i) project appraisal, with an emphasis on projects having environmental or natural resources management implications. We concentrate on the special techniques required for incorporating sustainability in project analysis. While cost-benefit analysis (CBA) will be the main approach considered, we will also look at alternatives such as multi-criteria analysis (MCA); (ii) valuation of non-market benefits and costs, including the use of worked examples and case studies from the instructor's own research. A lab exercise allows students to use an econometrics package to estimate willingness-to-pay with real data; (iii) economic analysis of renewable resources (e.g. fisheries, forestry), including extensions involving optimization and bioeconomic modelling. Although the course is primarily seminar-based, there will be important practical elements that will enable students to get 'hands on' experience using spreadsheets and standard econometric software.

Course Prerequisites

Completion of REM 621, ECON 200 or permission of instructor. Some previous exposure to quantitative methods is helpful but not required.

Student Evaluation

Term Project (40%) - students prepare a paper on a topic developed in consultation with the instructor. The topic should have some relation to the reading list, e.g. project appraisal, multi-criteria analysis, incorporating environment into CBA, non-market valuation or renewable resource economic/bioeconomics. Students will present their preliminary findings in class (5%) and written projects (35%) are due following the last class. Outlines are due earlier.

Assignments (60%) - students will be required to complete four assignments. Two will be short take home assignments (20% each), a third will be a short lab quiz (10%) and, in addition, students will present a pre-assigned discussion paper in class and lead a discussion (10%).

Text and Supplementary Readings

N. Hanley and E.B. Barbier, *Pricing Nature - Cost–Benefit Analysis and Environmental Policy*, Edward Elgar Publishers UK, 2009. Additional electronic readings will be provided in a detailed reading list and will be uploaded to a course website.