

**Training Course in Fundamentals of Microeconomics for Environmental Economics
(3rd – 20th Jan, 07) Dhulikhel, Nepal**

Course outline for the Microeconomics Tools course

- a) Week One: 6 teaching days (Jan 3-8)
Mathematical Econ – by Prof. Partha Sen, Delhi School of Economics, Delhi
- b) Week Two: 5 teaching days (Jan 10-14)
Micro-Economics concepts – by Prof. A. K. Enamul Haque, East West University, Dhaka
- c) Week Three: 5 teaching days (Jan 16-20)
Introduction to Environmental Economics - Prof. Rabindra N Bhattacharya, Viswa Bharati University, Shantiniketan

General Issues:

Classes will be held in the morning (2 classes of 90 minutes each). Afternoons will be devoted to assignments. Mr. William Joe (CDS, Trivandrum), the Teaching Assistant for the course, will supervise the assignment sessions.

Week 1

Topics

Single Variable Differentiation. (Chap 4 – Sydsaeter & Hammond)
More on Differentiation. (Chap 5)
Single Variable Optimization. (Chap 9)
Functions of Several Variables. (Chap 15)
Toolkit for Comparative Statics. (Chap 16)
Multivariable Optimization. (Chap 17)
Constrained Optimization. (Chap 18)
Dynamic Optimisation (Chap 7 – Lambert)

Reference

Sydsaeter and Hammond “Mathematics for Economic Analysis”, Prentice Hall, various chapters
Lambert, P.J. Advanced Mathematics for Economists: Static and Dynamic Optimization, pp. 231. Oxford: Blackwell, 1985(Chapter 7)

Week 2

Topics

Consumer Behaviour (Relevant Chapters from Nicholson)
Demand Theory
Risk and Uncertainty
Theory of the firm
Production and costs
Perfect and Imperfect Competition
Externalities and public goods

Reference

Walter Nicholson - Microeconomics - basic principles and extension, Thomson-South Western Publishers.

Week 3

Topics

- 1) Introduction to Natural Resource Management
- 2) Econ.of Renewable Resources--Forestry.
- 3) Understanding Common Property Resources
- 4) CPR & elements of game theory.
- 5) Pollution (I)- Regulation,
- 6) Pollution (II)- Fees & Marketable permits
- 7) Pollution (III) –Uncertainty & Moral Hazard
- 8) Elements of Welfare Economics.
- 9) Valuation of Environmental Benefits and Costs. (I) – Hedonic Methods
- 10) Valuation of Environmental Benefits and Costs. (II) – Constructed Markets

References:

- (1 & 2): (i) R.N.Bhattacharya (ed) , Chap.2
 (ii) Anthony Fisher, Resource & Env.Econ.,Chap.3.
- (3): Hanley,Shogren & White , Chap 11.
- (4): (i) Bardhan & Udry , Development Microeconomics, Chap 13.
 (ii) Baland & Platteau , Halting the degradation of commons, pp 90-95.
- (5, 6&7): Kolstad, Chaps. 8--11
- (8): Kolstad, Chaps.14&15
- (9&10): Kolstad,Chaps 16-18